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PRELIMINARY REPORT
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1987 Census of Manufactures

MC87-SUM-1(P)
Issued September 1989

United States

This report presents preliminary statistics from the 1987 Census of Manufactures for industry groups and industries, and for States and the District of Columbia. These data will be superseded by more comprehensive final industry reports and final geographic area reports. These reports will be issued on a flow basis. The method of data collection and use of administrative data are discussed in detail in the appendix.

All dollar figures included in this report are at prices current for the year specified and, therefore, unadjusted for changes in price levels. Consequently, when making comparisons to prior years, users should take into consideration the inflation that has occurred.

The definitions of the industries contained in this report are the same as those used in the 1987 Standard Industrial Classification (SIC) Manual¹. The SIC number and title are also the same.

INDUSTRY AND GEOGRAPHIC AREA STATISTICS

In 1987, 18.9 million persons were employed in the Nation's operating manufacturing establishments and related auxiliaries. This figure represents a decrease of 1 percent from the 1982 figure of 19.1 million workers.

The leading industry groups ranked by employment were SIC 35, Industrial Machinery and Equipment, with 1.9 million jobs; SIC 37, Transportation Equipment, 1.8 million jobs; SIC 36, Electronic and Other Electric Equipment, 1.6 million jobs; and SIC 27, Printing and Publishing, 1.5 million jobs. They accounted for approximately 36 percent of the Nation's 1987 manufacturing employment.

The leading States ranked by employment were California with 2.1 million jobs; New York, 1.3 million jobs; Ohio, 1.1 million jobs; and Pennsylvania, 1.0 million jobs. They accounted for approximately 29 percent of the Nation's 1987 manufacturing employment. The order has shifted from 1982 when California led with 2.0 million jobs; New York, 1.4 million jobs; Pennsylvania, 1.2 million jobs; and Ohio, 1.1 million jobs. These States accounted for approximately 30 percent of the Nation's manufacturing employment in 1982.

ABBREVIATIONS AND SYMBOLS

The following abbreviations and symbols are used in the tables in this publication:

-	Represents zero.
(D)	Withheld to avoid disclosing data for individual companies; data are included in higher level totals.
(NA)	Not available.
(NC)	Not comparable.
(S)	Withheld because estimate did not meet publication standards on the basis of either the response rate or a consistency review.
(X)	Not applicable.
(Z)	Less than half the unit shown.
do	Ditto.
n.e.c.	Not elsewhere classified.
n.s.k.	Not specified by kind.
pt.	Part.
r	Revised.
SIC	Standard Industrial Classification.

¹Standard Industrial Classification Manual: 1987. For sale by Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402. Stock No. 041-001-00314-2.

Address inquiries to Bureau of the Census, Industry Division, Washington, DC 20233, or call Julius Smith (301) 763-1503.



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Table 1. Historical Statistics for All Manufacturing Establishments Including Auxiliaries: 1987 and Earlier Years

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix]

Year ¹	Companies ^{2 3} (number)	All establishments ³		All employees ^{3 4}		Production workers			Value added by manufacture ⁵ (million dollars)	Cost of materials ⁶ (million dollars)	Value of shipments ⁶ (million dollars)	New capital expenditures ⁷ (million dollars)
		Total (number)	With 20 employ- ees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)				
1987 Census -----	317 590	368 817	126 162	18 933.6	474 082.9	12 259.5	24 355.8	251 533.0	1 166 554.9	1 321 327.8	2 480 236.2	78 907.3
1986 ASM -----	(NA)	(NA)	(NA)	18 370.0	450 759.6	11 765.4	23 178.2	236 599.4	1 035 437.4	1 217 608.6	2 260 314.6	76 354.5
1985 ASM -----	(NA)	(NA)	(NA)	18 796.4	443 095.1	12 174.4	23 731.6	235 790.8	1 000 142.0	1 276 009.6	2 280 183.8	83 058.3
1984 ASM -----	(NA)	(NA)	(NA)	19 123.3	428 398.8	12 572.8	24 637.1	231 783.9	983 227.7	1 288 413.6	2 253 429.3	75 185.8
1983 ASM -----	(NA)	(NA)	(NA)	18 709.2	394 720.9	12 194.9	23 611.1	212 407.9	881 987.8	1 170 317.7	2 054 897.9	62 204.9
1982 Census -----	298 429	358 061	123 163	19 094.1	379 626.5	12 400.6	23 538.3	204 787.2	824 117.7	1 130 142.7	1 960 205.8	74 561.6
1981 ASM -----	(NA)	(NA)	(NA)	20 264.0	379 214.4	13 542.8	26 233.1	212 200.9	837 506.5	1 193 969.6	2 017 542.5	78 632.3
1980 ASM -----	(NA)	(NA)	(NA)	20 646.9	350 410.9	13 900.1	26 745.7	198 164.0	773 831.3	1 093 567.6	1 852 668.3	70 112.8
1979 ASM -----	(NA)	(NA)	(NA)	21 040.2	328 887.9	14 537.8	28 324.3	192 881.5	747 480.5	999 157.5	1 727 214.6	61 533.0
1978 ASM -----	(NA)	(NA)	(NA)	20 501.9	298 867.4	14 228.7	27 676.5	176 416.8	657 412.0	877 424.7	1 522 937.3	55 209.2
1977 Census -----	300 393	359 928	118 699	19 590.1	264 013.1	13 691.0	26 686.7	157 163.7	585 165.6	782 417.7	1 358 526.4	47 459.0
1976 ASM -----	(NA)	(NA)	(NA)	18 753.0	233 388.7	13 052.0	25 354.2	137 565.4	511 471.1	681 194.1	1 185 695.3	40 669.9
1975 ASM -----	(NA)	(NA)	(NA)	18 302.2	209 519.0	12 568.9	24 069.6	121 429.0	442 485.2	597 327.0	1 039 377.4	37 262.1
1974 ASM -----	(NA)	(NA)	(NA)	19 844.4	208 312.0	13 927.1	27 251.0	124 977.1	452 497.0	581 580.0	1 017 873.4	35 546.1
1973 ASM -----	(NA)	(NA)	(NA)	19 844.8	193 324.5	14 232.8	28 096.9	118 332.6	405 583.6	478 169.6	875 443.2	26 972.9
1972 Census -----	267 422	320 710	114 195	19 028.7	174 205.5	13 527.9	26 699.2	105 501.8	353 994.0	407 418.7	756 534.3	24 077.7

¹In annual survey of manufactures (ASM) years, data are estimates based on a representative sample of establishments canvassed annually and may differ from results of a complete canvass of all establishments. ASM publication shows percentage standard errors. For data prior to 1972, see 1972 Census of Manufactures, vol. I, table 1 of the General Summary chapter.

²For the census, a company is defined as a business organization consisting of one establishment or more under common ownership or control.

³Includes establishments with payroll at any time during year.

⁴Includes auxiliaries (see appendix).

⁵Beginning in 1982, all respondents were requested to report their inventories at cost or market prior to adjustment to LIFO cost. This is a change from prior years in which respondents were permitted to value their inventories using any generally accepted accounting method. Consequently, 1982 through 1987 data for value added are not comparable to prior years.

⁶Aggregate of cost of materials and value of shipments includes extensive duplication since products of some industries are used as materials by others (see appendix).

⁷Includes expenditures for plants in operation and for plants under construction but not yet in operation.

Table 2. Statistics for Industry Groups and Industries: 1987 and 1982

[Data in this table may differ from the preliminary industry reports previously issued. These differences are due to corrections which were made for errors identified after the industry reports were

1987 SIC code	Industry group and industry	1987												
		All establishments ¹		All employees		Production workers			Value added by manufac- ture (million dollars)	Cost of materials ² (million dollars)	Value of shipments ² (million dollars)	New capital expendi- tures ³ (million dollars)	Ratios	
		Total (number)	With 20 employ- ees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)					Spe- cial- iza- tion (per- cent)	Cov- erage (per- cent)
	All Industries -----	368 817	126 162	18 933.6	474 082.9	12 259.5	24 355.8	251 533.0	1 166 554.9	1 321 327.8	2 480 236.2	78 907.3	(NA)	(NA)
20	Food and kindred products --	20 624	9 694	1 448.3	30 232.6	1 029.5	2 020.0	18 894.8	122 072.6	208 628.7	330 115.0	7 224.9	(NA)	(NA)
201	Meat products -----	3 267	1 535	339.5	5 674.1	283.9	569.7	4 253.0	13 740.4	62 850.3	76 530.1	883.0	(NA)	(NA)
2011	Meat packing plants -----	1 465	504	113.0	2 139.1	92.9	195.8	1 617.7	5 160.0	39 840.3	44 973.8	242.2	98	99
2013	Sausages and other prepared meats -----	1 340	651	79.3	1 621.0	60.0	121.9	1 080.9	4 470.3	12 184.1	16 660.1	254.8	96	97
2015	Poultry slaughtering and processing -----	462	380	147.2	1 914.0	131.0	252.0	1 554.3	4 110.2	10 825.9	14 896.2	386.0	98	97
202	Dairy products -----	2 366	1 289	141.3	3 215.7	87.8	176.4	1 818.7	11 908.9	32 945.7	44 822.0	745.2	(NA)	(NA)
2021	Creamery butter -----	49	26	1.7	38.9	1.3	2.8	27.4	155.6	1 269.3	1 420.4	9.7	75	64
2022	Cheese, natural and processed -----	643	310	33.0	657.4	27.0	52.6	510.0	2 614.4	10 315.1	12 939.0	146.1	85	94
2023	Dry, condensed, and evaporated dairy products -----	185	114	14.0	397.7	8.7	17.9	206.0	2 388.2	3 445.4	5 835.7	109.4	83	74
2024	Ice cream and frozen desserts -----	540	212	20.4	441.5	13.8	26.9	269.2	1 263.4	2 669.5	3 918.4	137.3	93	77
2026	Fluid milk -----	949	627	72.3	1 680.2	37.0	76.1	806.0	5 487.3	15 246.5	20 708.4	342.7	84	92
203	Preserved fruits and vegetables -----	1 912	1 106	208.3	3 773.4	172.9	326.8	2 767.5	17 272.1	19 042.8	36 178.8	1 038.9	(NA)	(NA)
2032	Canned specialties -----	211	86	24.5	526.0	19.5	38.3	396.8	2 661.9	2 703.4	5 364.7	148.7	77	91
2033	Canned fruits and vegetables -----	648	418	65.6	1 163.1	55.9	104.4	880.4	5 441.8	6 467.8	11 893.1	250.0	90	84
2034	Dehydrated fruits, vegetables, and soups -----	131	68	10.1	190.6	8.4	15.4	137.7	938.6	928.4	1 830.5	48.2	93	81
2035	Pickles, sauces, and salad dressings -----	381	161	21.0	441.5	16.3	32.0	302.7	2 457.8	2 455.5	4 912.4	219.7	79	84
2037	Frozen fruits and vegetables -----	258	193	49.8	786.8	42.8	78.4	591.4	2 986.0	3 669.5	6 606.2	179.2	91	93
2038	Frozen specialties, n.e.c. --	283	180	37.3	665.3	30.0	58.3	458.5	2 786.0	2 818.2	5 571.9	183.1	93	93
204	Grain mill products -----	2 610	1 015	102.7	2 708.0	70.1	148.3	1 731.2	15 271.3	21 530.4	36 784.2	1 072.4	(NA)	(NA)
2041	Flour and other grain mill products -----	361	168	13.9	365.2	10.2	22.2	252.2	1 384.0	3 709.9	5 084.9	81.0	98	97
2043	Cereal breakfast foods -----	53	34	16.0	598.9	13.1	28.4	478.6	4 904.5	1 669.8	6 565.7	333.4	79	97
2044	Rice milling -----	63	35	4.5	89.1	3.5	7.3	60.4	440.1	852.4	1 234.9	48.9	98	95
2045	Prepared flour mixes and doughs -----	147	95	11.7	267.7	8.0	16.1	152.6	1 237.0	1 294.0	2 537.8	64.7	87	77
2046	Wet corn milling -----	61	36	8.6	299.8	5.9	13.0	193.3	2 030.9	2 746.7	4 797.5	282.5	88	93
2047	Dog and cat food -----	186	101	13.4	365.2	9.8	20.5	243.9	2 739.2	2 289.1	5 059.5	107.3	99	96
2048	Prepared feeds, n.e.c. -----	1 739	546	34.6	722.2	19.6	41.0	350.3	2 535.4	8 968.6	11 503.8	154.7	98	96
205	Bakery products -----	2 850	1 287	217.0	4 760.9	127.9	248.3	2 549.2	15 251.7	8 477.0	23 694.7	735.9	(NA)	(NA)
2051	Bread, cake, and related products -----	2 356	1 030	161.6	3 556.0	86.6	168.9	1 714.1	10 550.9	5 670.6	16 220.1	519.0	97	98
2052	Cookies and crackers -----	380	191	45.4	1 009.8	33.9	65.2	702.9	4 100.7	2 241.0	6 309.1	185.1	95	94
2053	Frozen bakery products, except bread -----	114	66	9.9	195.0	7.5	14.2	132.2	600.1	565.4	1 165.4	31.8	92	78
206	Sugar and confectionery products -----	1 094	520	90.4	1 994.5	72.4	140.5	1 423.1	8 927.1	10 560.6	19 355.1	492.0	(NA)	(NA)
2061	Raw cane sugar -----	50	42	6.3	144.3	4.9	11.1	109.1	509.6	796.0	1 248.6	43.3	99	99
2062	Cane sugar refining -----	24	16	5.5	177.4	4.2	9.0	130.4	445.9	2 003.4	2 461.3	32.7	99	99
2063	Beet sugar -----	43	38	7.9	190.1	6.6	14.4	151.0	613.2	1 277.1	1 831.6	42.5	100	98
2064	Candy and other confectionery products -----	672	292	44.5	880.1	35.9	66.8	618.7	4 163.0	3 118.1	7 259.4	231.9	96	93
2066	Chocolate and cocoa products -----	188	55	12.3	304.7	9.5	17.8	205.4	1 578.3	1 727.0	3 284.6	90.4	92	91
2067	Chewing gum -----	29	12	5.2	125.6	4.3	8.1	93.1	750.3	347.8	1 091.7	23.2	89	96
2068	Salted and roasted nuts and seeds -----	88	65	8.8	172.1	6.9	13.4	115.3	866.8	1 291.2	2 178.0	28.0	90	93
207	Fats and oils -----	595	358	30.4	713.8	20.4	42.7	437.5	3 245.5	12 916.5	16 095.4	257.6	(NA)	(NA)
2074	Cottonseed oil mills -----	52	40	2.6	44.8	2.0	4.5	29.8	106.9	378.8	470.7	12.2	97	92
2075	Soybean oil mills -----	115	74	7.1	174.0	4.9	10.2	113.2	1 019.0	8 199.0	9 177.3	91.5	90	97
2076	Vegetable oil mills, n.e.c. --	23	15	.9	19.9	.5	1.1	11.4	82.7	353.3	431.5	4.9	87	71
2077	Animal and marine fats and oils -----	305	154	10.3	215.7	6.2	12.8	111.5	750.4	1 024.1	1 762.1	60.4	96	71
2079	Edible fats and oils, n.e.c. --	100	75	9.6	259.3	6.8	14.1	171.7	1 286.5	2 961.3	4 253.9	88.4	90	77
208	Beverages -----	2 214	1 132	160.2	4 498.5	77.3	153.7	2 125.4	22 693.7	24 859.8	47 463.4	1 249.6	(NA)	(NA)
2082	Malt beverages -----	134	64	31.8	1 354.9	22.6	44.7	927.4	7 270.8	6 311.4	13 608.7	474.9	99	100
2083	Malt -----	27	19	1.4	44.2	1.1	2.2	32.3	153.6	368.0	530.9	13.5	100	(D)
2084	Wines, brandy, and brandy spirits -----	508	108	13.5	329.3	7.0	12.7	144.0	1 317.1	1 815.7	3 176.7	99.6	99	97
2085	Distilled and blended liquors -----	71	56	8.8	238.6	6.3	12.4	161.1	2 043.7	1 508.8	3 420.4	43.9	98	95
2086	Bottled and canned soft drinks -----	1 192	785	95.7	2 276.7	35.6	71.9	750.1	8 612.9	13 488.8	22 072.3	568.4	97	96
2087	Flavoring extracts and syrops, n.e.c. -----	282	100	9.0	254.9	4.8	9.8	110.5	3 295.6	1 367.2	4 654.3	49.2	95	90
209	Miscellaneous food and kindred products -----	3 716	1 452	158.4	2 893.9	116.8	213.5	1 789.2	13 762.0	15 445.6	29 191.4	750.4	(NA)	(NA)
2091	Canned and cured fish and seafoods -----	178	84	6.8	101.4	5.5	9.4	70.2	290.1	509.1	800.5	14.7	86	77
2092	Fresh or frozen prepared fish -----	640	354	38.1	527.4	32.4	57.9	379.4	1 540.0	4 188.2	5 728.3	104.6	96	97
2095	Roasted coffee -----	142	83	10.8	304.5	6.7	13.8	171.5	2 602.8	3 803.0	6 441.0	155.3	93	99
2096	Potato chips and similar snacks -----	340	182	33.0	622.3	23.2	38.5	375.5	3 292.5	1 745.0	5 027.3	180.9	98	94
2097	Manufactured ice -----	548	65	4.7	76.9	2.8	5.9	41.8	202.2	86.2	288.5	13.9	99	98
2098	Macaroni and spaghetti -----	227	49	6.7	141.7	5.1	10.0	91.7	620.3	442.5	1 061.8	32.5	95	98
2099	Food preparations, n.e.c. --	1 641	635	58.3	1 119.6	41.1	78.0	659.1	5 214.1	4 671.5	9 843.9	248.5	90	80

See footnotes at end of table.

issued. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix]

1982														1987 SIC code
All establishments ¹		All employees		Production workers			Value added by manufac- ture (million dollars)	Cost of materials ² (million dollars)	Value of shipments ² (million dollars)	New capital expendi- tures ³ (million dollars)	Ratios			
Total (number)	With 20 employ- ees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)					Spe- cial- iza- tion (per- cent)	Cov- erage (per- cent)		
358 061	123 163	19 094.1	379 626.5	12 400.6	23 538.3	204 787.2	824 117.7	1 130 142.7	1 960 205.8	74 561.6	(NA)	(NA)		
22 130	10 681	1 487.7	26 087.5	1 046.8	2 033.4	16 439.5	88 419.1	192 216.6	280 529.3	6 726.9	(NA)	(NA)	20	
3 623	1 682	317.7	4 992.7	264.5	518.0	3 857.4	11 002.3	56 598.2	67 602.2	696.6	(NA)	(NA)	201	
1 780	668	134.4	2 549.3	108.5	220.2	1 995.9	5 824.6	39 048.6	44 853.6	290.0	98	99	2011	
1 311	613	65.5	1 206.2	49.8	98.1	851.7	2 900.9	9 379.1	12 277.5	175.5	97	98	2013	
532	401	117.7	1 237.1	106.2	199.6	1 009.9	2 276.8	8 170.5	10 471.1	231.1	(NA)	(NA)	2015	
2 724	1 449	139.9	2 553.1	82.8	166.9	1 420.0	8 359.8	30 473.6	38 771.3	711.3	(NA)	(NA)	202	
74	35	2.2	40.2	1.7	3.5	28.5	135.6	1 556.1	1 686.8	8.4	77	64	2021	
704	319	29.6	472.1	24.1	47.4	363.3	1 777.3	9 012.7	10 762.8	161.2	89	92	2022	
													2023	
204	125	12.2	258.7	8.6	18.4	167.4	1 447.6	3 296.7	4 730.7	98.8	78	68	2024	
552	219	17.8	313.5	11.1	20.9	177.3	910.4	1 949.0	2 855.1	79.9	94	73	2026	
1 190	751	78.2	1 468.7	37.4	76.8	683.6	4 088.9	14 659.1	18 736.0	363.0	83	92	2026	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	203	
198	88	23.4	392.4	19.0	37.0	297.6	1 769.3	2 372.0	4 140.8	154.3	78	90	2032	
715	451	70.5	1 040.1	60.7	113.6	822.4	3 552.7	5 768.1	9 283.4	264.1	89	87	2033	
151	85	13.6	216.9	11.2	19.1	156.2	792.3	985.0	1 745.1	51.7	94	93	2034	
376	155	22.0	371.5	17.4	33.3	260.8	1 736.9	2 532.7	4 268.8	67.5	68	83	2035	
264	199	47.7	643.5	41.5	77.1	506.7	2 408.6	2 970.1	5 374.6	235.7	93	93	2037	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	2038	
2 745	1 063	107.5	2 197.0	74.6	152.6	1 442.0	10 333.1	20 965.7	31 386.4	884.1	(NA)	(NA)	204	
360	174	15.1	323.0	11.4	24.2	233.3	1 094.3	3 825.5	4 932.8	90.6	97	70	2041	
52	37	15.6	435.0	12.8	25.5	340.0	2 622.8	1 475.0	4 131.9	165.4	77	96	2043	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	2044	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	2045	
42	27	9.5	254.7	6.7	13.8	170.6	1 157.4	2 101.0	3 268.4	326.2	89	92	2046	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	2047	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	2048	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	205	
2 305	1 074	170.9	3 254.3	89.0	174.5	1 522.3	7 861.1	5 282.7	13 143.3	382.4	97	98	2051	
358	187	45.6	796.5	35.0	66.8	562.5	2 789.3	1 880.2	4 664.9	107.8	95	94	2052	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	2053	
1 033	506	95.7	1 660.6	77.0	150.2	1 196.5	6 234.0	9 384.7	15 575.8	470.0	(NA)	(NA)	206	
51	44	7.5	133.8	5.8	13.1	100.5	297.7	755.8	1 113.9	89.6	100	100	2061	
30	25	8.3	197.2	6.2	12.8	139.5	622.4	2 424.9	3 040.3	69.2	100	100	2062	
48	44	10.3	169.4	8.8	17.3	136.4	432.2	1 102.5	1 515.8	32.8	100	100	2063	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	2064	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	2066	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	2067	
14	14	5.4	96.9	4.3	7.9	70.4	598.9	312.3	915.3	16.6	79	(D)	2068	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	207	
724	432	38.7	774.3	27.4	58.0	494.0	2 785.4	13 910.6	16 751.8	392.9	(NA)	(NA)	207	
77	59	5.2	76.2	4.3	9.7	54.5	202.9	715.0	933.3	59.6	94	97	2074	
114	84	8.9	188.7	6.2	13.4	123.1	678.2	7 896.8	8 603.6	113.4	88	95	2075	
29	15	1.3	22.3	.9	1.8	14.8	80.0	467.0	556.9	66.9	93	78	2076	
386	189	10.8	215.1	7.2	15.5	127.8	562.6	1 188.5	1 752.5	56.5	97	68	2077	
118	85	12.5	272.0	8.7	17.6	173.8	1 261.7	3 643.3	4 905.6	96.5	85	77	2079	
2 584	1 501	194.1	4 244.1	95.3	189.5	2 000.9	16 683.6	22 163.7	38 800.7	1 627.9	(NA)	(NA)	208	
109	73	43.0	1 307.9	29.5	57.5	883.5	4 534.8	6 669.7	11 183.2	665.0	100	100	2082	
36	25	1.7	42.9	1.3	2.7	31.9	166.2	480.0	661.5	29.5	100	(D)	2083	
366	103	11.8	245.8	6.8	12.8	125.4	996.7	1 762.9	2 785.7	136.8	98	98	2084	
104	75	12.2	263.8	8.9	18.0	182.7	1 460.1	1 700.5	3 126.1	90.0	97	96	2085	
1 626	1 094	113.8	2 146.4	42.4	85.2	668.3	6 856.1	9 981.3	16 807.5	649.5	98	96	2086	
343	131	11.6	237.3	6.5	13.3	109.1	2 669.8	1 569.3	4 236.8	57.1	93	88	2087	
3 941	1 558	158.0	2 299.8	118.8	213.8	1 471.9	10 017.2	13 962.7	23 959.0	520.2	(NA)	(NA)	209	
204	107	13.9	194.9	12.1	21.1	150.6	613.4	1 235.3	1 849.1	20.5	(D)	91	2091	
783	433	37.5	408.6	32.5	55.5	303.8	966.7	3 040.0	4 009.1	62.2	97	97	2092	
152	85	11.8	265.7	7.4	15.0	157.1	2 070.3	3 749.0	5 826.9	80.5	94	99	2095	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	2096	
596	64	5.0	65.1	3.0	5.5	35.9	152.6	79.0	229.5	13.4	100	98	2097	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	2098	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	2099	

Table 2. Statistics for Industry Groups and Industries: 1987 and 1982—Con.

[Data in this table may differ from the preliminary industry reports previously issued. These differences are due to corrections which were made for errors identified after the industry reports were

1987 SIC code	Industry group and industry	1987												Ratios	
		All establishments ¹		All employees		Production workers			Value added by manu- facture (million dollars)	Cost of materials ² (million dollars)	Value of shipments ² (million dollars)	New capital expendi- tures ³ (million dollars)			
		Total (number)	With 20 employ- ees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)							
21	Tobacco products -----	138	83	44.7	1 485.9	32.7	61.3	992.5	14 260.5	6 497.8	20 761.0	464.4	(NA)	(NA)	
211	Cigarettes -----	11	11	32.0	1 232.9	23.6	42.8	841.7	12 967.3	4 395.0	17 367.0	410.1	97	(D)	
2111	Cigarettes -----	11	11	32.0	1 232.9	23.6	42.8	841.7	12 967.3	4 395.0	17 367.0	410.1	97	(D)	
212	Cigars -----	20	18	2.5	35.7	2.0	4.0	26.2	106.3	85.5	191.5	5.0	96	89	
2121	Cigars -----	20	18	2.5	35.7	2.0	4.0	26.2	106.3	85.5	191.5	5.0	96	89	
213	Chewing and smoking tobacco -----	29	19	3.3	77.2	2.2	4.3	46.2	791.9	321.5	1 114.3	8.9	97	(D)	
2131	Chewing and smoking tobacco -----	29	19	3.3	77.2	2.2	4.3	46.2	791.9	321.5	1 114.3	8.9	97	(D)	
214	Tobacco stemming and redrying -----	78	35	7.0	140.2	4.8	10.2	78.4	395.1	1 695.8	2 088.2	40.4	99	(D)	
2141	Tobacco stemming and redrying -----	78	35	7.0	140.2	4.8	10.2	78.4	395.1	1 695.8	2 088.2	40.4	99	(D)	
22	Textile mill products -----	6 412	3 437	678.0	11 460.1	580.2	1 187.5	8 766.8	26 013.9	37 901.9	63 508.2	2 050.4	(NA)	(NA)	
221	Broadwoven fabric mills, cotton -----	301	151	72.5	1 263.2	65.1	138.3	1 074.8	2 608.6	2 923.6	5 518.1	199.1	86	87	
2211	Broadwoven fabric mills, cotton -----	301	151	72.5	1 263.2	65.1	138.3	1 074.8	2 608.6	2 923.6	5 518.1	199.1	86	87	
222	Broadwoven fabric mills, manmade fiber and silk -----	441	274	88.9	1 608.5	77.6	164.4	1 282.5	3 647.7	4 541.0	8 136.9	316.0	87	90	
2221	Broadwoven fabric mills, manmade fiber and silk -----	441	274	88.9	1 608.5	77.6	164.4	1 282.5	3 647.7	4 541.0	8 136.9	316.0	87	90	
223	Broadwoven fabric mills, wool -----	119	69	14.2	231.3	12.4	25.0	180.7	494.1	583.0	1 040.6	39.5	90	82	
2231	Broadwoven fabric mills, wool -----	119	69	14.2	231.3	12.4	25.0	180.7	494.1	583.0	1 040.6	39.5	90	82	
224	Narrow fabric mills -----	277	170	19.1	305.8	16.2	32.6	217.5	612.3	576.1	1 185.7	34.0	94	93	
2241	Narrow fabric mills -----	277	170	19.1	305.8	16.2	32.6	217.5	612.3	576.1	1 185.7	34.0	94	93	
225	Knitting mills -----	2 130	1 258	203.5	2 990.4	176.0	343.8	2 295.5	6 408.8	7 345.4	13 688.2	389.7	(NA)	(NA)	
2251	Women's hosiery, except socks -----	161	93	29.3	385.9	25.9	53.7	321.1	769.5	715.6	1 497.5	32.3	98	97	
2252	Hosiery, n.e.c. -----	426	276	36.5	467.8	32.5	59.6	372.0	960.3	1 009.0	1 952.3	64.6	98	97	
2253	Knit outerwear mills -----	827	442	59.8	850.9	51.2	97.9	624.4	1 886.1	1 631.0	3 471.5	95.4	87	91	
2254	Knit underwear mills -----	65	46	20.0	288.3	18.1	34.7	243.0	534.9	557.9	1 086.1	32.1	72	92	
2257	Weft knit fabric mills -----	334	210	34.6	573.1	29.1	57.0	421.5	1 408.2	2 169.6	3 548.4	94.2	94	95	
2258	Lace and warp knit fabric mills -----	237	155	20.1	381.0	16.5	35.8	281.3	767.1	1 175.2	1 963.8	65.8	97	89	
2259	Knitting mills, n.e.c. -----	80	36	3.2	43.4	2.7	5.0	32.1	82.6	87.1	168.7	5.3	99	68	
226	Textile finishing, except wool -----	971	325	57.5	1 057.6	46.7	97.1	754.3	2 363.7	4 875.8	7 167.2	176.9	(NA)	(NA)	
2261	Finishing plants, cotton -----	518	107	17.3	308.6	14.0	28.3	219.8	619.9	855.7	1 466.3	49.1	86	74	
2262	Finishing plants, manmade -----	269	124	27.9	546.3	22.3	47.5	387.7	1 263.1	3 183.4	4 403.8	98.6	78	90	
2269	Finishing plants, n.e.c. -----	184	94	12.3	202.7	10.3	21.3	146.9	480.7	836.6	1 297.1	29.2	93	97	
227	Carpets and rugs -----	477	247	53.4	1 002.4	40.7	85.5	659.6	3 190.2	6 932.4	10 038.4	226.9	96	99	
2273	Carpets and rugs -----	477	247	53.4	1 002.4	40.7	85.5	659.6	3 190.2	6 932.4	10 038.4	226.9	96	99	
228	Yarn and thread mills -----	610	487	114.2	1 854.2	103.2	213.7	1 537.7	3 821.1	6 409.9	10 195.3	396.0	(NA)	(NA)	
2281	Yarn spinning mills -----	406	345	85.8	1 399.4	78.1	164.1	1 181.9	2 906.4	4 205.7	7 092.7	315.2	93	89	
2282	Throwing and winding mills -----	144	103	21.8	347.3	19.4	38.4	277.5	663.0	1 799.8	2 457.9	66.5	93	88	
2284	Thread mills -----	60	39	6.6	107.5	5.7	11.2	78.3	251.7	404.3	644.7	14.3	96	89	
229	Miscellaneous textile goods -----	1 086	456	54.6	1 146.7	42.4	87.2	764.2	2 867.4	3 714.8	6 538.0	272.2	(NA)	(NA)	
2295	Coated fabrics, not rubberized -----	188	94	11.1	273.3	8.0	17.0	177.3	606.8	941.1	1 532.1	65.3	85	91	
2296	Tire cord and fabrics -----	14	14	5.8	113.3	5.1	10.7	91.9	417.0	683.3	1 094.8	14.6	89	99	
2297	Nonwoven fabrics -----	130	93	14.2	328.4	10.7	22.0	206.2	837.5	1 073.1	1 900.2	94.9	87	70	
2298	Cordage and twine -----	197	78	6.9	112.3	5.5	10.8	75.6	283.7	261.1	540.9	12.0	94	97	
2299	Textile goods, n.e.c. -----	557	177	16.6	319.3	13.2	26.8	213.2	722.4	756.2	1 470.0	85.5	95	88	
23	Apparel and other textile products -----	22 872	9 537	1 084.9	13 988.6	913.3	1 617.7	9 910.2	33 310.8	32 867.6	65 765.4	764.4	(NA)	(NA)	
231	Men's and boys' suits and coats -----	347	245	56.6	801.5	49.4	88.0	614.5	1 963.5	1 284.9	3 213.4	32.4	90	91	
2311	Men's and boys' suits and coats -----	347	245	56.6	801.5	49.4	88.0	614.5	1 963.5	1 284.9	3 213.4	32.4	90	91	
232	Men's and boys' furnishings -----	2 195	1 628	281.8	3 278.6	247.4	445.9	2 534.6	8 674.6	7 062.6	15 597.8	205.5	(NA)	(NA)	
2321	Men's and boys' shirts -----	600	469	79.1	904.4	68.5	125.6	690.6	2 269.8	1 986.3	4 209.3	65.0	84	84	
2322	Men's and boys' underwear and nightwear -----	100	79	17.5	204.1	16.4	30.0	179.4	585.3	481.2	1 069.5	8.6	83	88	
2323	Men's and boys' neckwear -----	142	84	7.4	117.0	6.2	11.0	76.8	255.7	223.6	475.6	6.2	98	98	
2325	Men's and boys' trousers and slacks -----	482	413	93.4	1 102.3	82.5	146.1	860.6	3 284.4	2 689.0	5 926.9	74.1	84	91	
2326	Men's and boys' work clothing -----	265	201	34.1	352.4	29.9	52.5	276.1	970.5	735.7	1 705.7	17.9	86	91	
2329	Men's and boys' clothing, n.e.c. -----	606	382	50.3	598.3	43.8	80.7	451.3	1 308.8	946.8	2 210.9	33.7	80	74	
233	Women's and misses' outerwear -----	10 290	4 242	352.6	4 363.3	293.0	490.2	2 876.3	10 000.2	10 429.6	20 367.2	170.3	(NA)	(NA)	
2331	Women's, misses', and juniors' blouses and shirts -----	1 500	864	74.3	868.2	63.8	110.1	592.1	1 926.0	1 986.7	3 880.4	40.3	80	73	
2335	Women's, misses', and juniors' dresses -----	5 499	1 741	114.7	1 384.6	93.0	144.2	874.7	3 213.4	3 345.8	6 534.9	32.1	95	96	
2337	Women's, misses', and juniors' suits and coats -----	1 095	653	55.4	836.1	44.5	78.1	509.5	2 005.0	2 485.6	4 520.9	24.8	75	78	

See footnotes at end of table.

issued. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix]

1982														1987 SIC code
All establishments ¹		All employees		Production workers			Value added by manufac- ture (million dollars)	Cost of materials ² (million dollars)	Value of shipments ² (million dollars)	New capital expendi- tures ³ (million dollars)	Ratios			
Total (number)	With 20 employ- ees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)					Spe- cial- iza- tion (per- cent)	Cov- erage (per- cent)		
163	107	57.9	1 323.5	45.3	83.7	957.1	8 964.8	7 099.9	16 061.4	697.3	(NA)	(NA)	21	
14	13	41.5	1 093.7	32.2	58.5	801.0	8 098.3	4 052.3	12 126.8	570.9	97	(D)	211	
14	13	41.5	1 093.7	32.2	58.5	801.0	8 098.3	4 052.3	12 126.8	570.9	97	(D)	2111	
60	30	5.1	58.5	4.5	8.5	45.4	133.3	120.5	253.7	7.4	(D)	92	212	
60	30	5.1	58.5	4.5	8.5	45.4	133.3	120.5	253.7	7.4	(D)	92	2121	
													213	
29	18	3.1	51.6	2.4	4.4	37.4	420.5	246.8	665.4	8.3	(D)	84	2131	
29	18	3.1	51.6	2.4	4.4	37.4	420.5	246.8	665.4	8.3	(D)	84		
													214	
60	46	8.3	119.8	6.2	12.3	73.3	312.6	2 680.2	3 015.4	110.7	(D)	(D)	2141	
60	46	8.3	119.8	6.2	12.3	73.3	312.6	2 680.2	3 015.4	110.7	(D)	(D)		
6 630	3 663	717.4	9 046.1	615.5	1 158.9	6 936.2	18 550.2	28 713.4	47 515.4	1 579.0	(NA)	(NA)	22	
													221	
269	143	76.9	964.6	69.2	127.0	818.2	1 637.5	2 293.7	3 972.0	297.9	84	80	2211	
269	143	76.9	964.6	69.2	127.0	818.2	1 637.5	2 293.7	3 972.0	297.9	84	80		
													222	
523	363	140.8	1 815.2	123.0	230.5	1 446.6	3 488.6	4 647.1	8 191.2	385.3	89	85	2221	
523	363	140.8	1 815.2	123.0	230.5	1 446.6	3 488.6	4 647.1	8 191.2	385.3	89	85		
													223	
131	71	13.1	175.8	11.3	22.8	136.5	349.4	394.2	762.8	27.7	88	75	2231	
131	71	13.1	175.8	11.3	22.8	136.5	349.4	394.2	762.8	27.7	88	75		
281	161	17.5	215.5	15.2	28.5	158.9	464.7	388.3	851.8	22.3	95	97	224	
281	161	17.5	215.5	15.2	28.5	158.9	464.7	388.3	851.8	22.3	95	97	2241	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	225	
													2251	
206	117	30.2	311.1	26.7	49.6	241.5	777.4	636.8	1 411.3	26.0	95	91	2252	
420	263	32.6	326.5	28.8	51.2	258.1	617.3	832.2	1 443.4	31.4	92	95	2253	
923	482	66.8	741.4	55.9	102.0	539.8	1 704.8	1 476.8	3 182.4	53.5	95	94	2253	
84	61	22.3	232.3	20.0	35.3	191.7	446.2	369.7	829.9	9.3	88	93	2254	
422	222	31.1	420.9	25.7	50.9	309.1	850.4	1 669.0	2 538.8	68.8	92	93	2257	
													2258	
272	152	21.1	286.4	17.0	33.0	207.3	580.4	929.5	1 538.0	44.9	(NA)	(NA)	2259	
72	29	2.9	33.8	2.5	4.7	25.7	55.4	57.5	114.5	1.5	97	81	2259	
753	353	58.1	834.0	47.4	93.7	607.4	1 590.3	3 351.0	4 971.9	118.1	(NA)	(NA)	226	
275	80	11.6	161.8	9.6	18.2	121.2	256.1	492.6	753.8	24.0	85	78	2261	
296	166	34.4	514.8	27.8	55.7	375.0	999.0	2 173.3	3 186.2	79.0	82	92	2262	
182	107	12.0	157.3	10.0	19.7	111.2	335.1	685.1	1 031.9	15.1	90	92	2269	
505	243	41.8	603.1	32.9	65.0	396.4	1 711.7	4 089.2	5 807.8	83.9	(NA)	(NA)	227	
505	243	41.8	603.1	32.9	65.0	396.4	1 711.7	4 089.2	5 807.8	83.9	(NA)	(NA)	2273	
													228	
714	531	108.6	1 277.8	97.7	183.3	1 054.7	2 318.2	4 674.0	7 036.4	231.1	(NA)	(NA)	228	
450	347	76.0	891.5	69.5	130.5	756.1	1 575.0	2 913.6	4 512.9	156.6	(NA)	(NA)	2281	
													2282	
185	139	22.8	273.0	19.8	37.7	212.3	527.4	1 399.6	1 944.7	59.0	94	49		
75	45	9.8	113.2	8.4	15.1	86.3	215.5	360.8	578.8	15.3	97	90	2284	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	229	
													2295	
198	114	11.0	198.5	8.0	15.7	120.8	435.2	676.2	1 115.0	28.4	88	87	2296	
21	19	6.5	90.5	5.6	9.6	69.7	289.9	687.9	981.5	6.2	90	99	2296	
132	91	12.3	198.8	9.5	18.7	136.2	544.4	743.4	1 278.7	78.7	90	68	2297	
181	69	6.6	77.0	5.2	9.4	51.7	181.5	178.7	358.7	17.0	92	91	2298	
523	179	17.3	242.8	14.0	27.8	166.1	507.0	617.8	1 129.2	47.0	(NA)	(NA)	2299	
													23	
24 391	10 907	1 189.0	12 128.8	1 009.7	1 803.5	8 831.9	26 060.5	27 087.8	53 387.9	654.3	(NA)	(NA)	231	
													2311	
529	344	75.2	878.2	65.0	116.9	658.9	1 683.0	1 397.5	3 061.5	24.6	92	93		
529	344	75.2	878.2	65.0	116.9	658.9	1 683.0	1 397.5	3 061.5	24.6	92	93		
2 544	1 815	298.9	2 836.6	258.8	449.9	2 137.5	6 621.2	5 997.8	12 727.1	157.4	(NA)	(NA)	232	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	2321	
170	91	6.7	82.2	5.3	9.0	49.5	183.8	149.2	335.0	4.9	(NA)	(NA)	2322	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	2323	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	2325	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	2326	
646	386	44.6	432.8	38.6	68.5	323.0	931.3	745.3	1 658.3	18.3	84	85	2329	
													233	
10 838	5 103	418.9	4 110.4	355.8	640.5	2 928.2	8 576.1	9 575.3	18 224.5	213.1	(NA)	(NA)	2331	
													2335	
1 954	1 110	92.2	874.7	79.3	140.9	623.2	1 837.8	2 032.2	3 884.2	29.4	84	75	2337	
5 627	2 055	137.9	1 268.3	120.0	210.7	960.9	2 413.2	2 210.7	4 623.3	68.1	94	94	2335	
1 512	900	78.2	871.1	63.2	125.8	579.0	2 067.1	2 772.6	4 886.7	30.5	75	82	2337	

Table 2. Statistics for Industry Groups and Industries: 1987 and 1982—Con.

[Data in this table may differ from the preliminary industry reports previously issued. These differences are due to corrections which were made for errors identified after the industry reports were

1987 SIC code	Industry group and industry	1987												
		All establishments ¹		All employees		Production workers			Value added by manu- facture (million dollars)	Cost of materials ² (million dollars)	Value of shipments ² (million dollars)	New capital expendi- tures ³ (million dollars)	Ratios	
		Total (number)	With 20 employ- ees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)					Spe- cial- iza- tion (per- cent)	Cov- erage (per- cent)
23	Apparel and other textile products—Con.													
233	Women's and misses' outerwear—Con.													
2339	Women's, misses', and juniors' outerwear, n.e.c.	2 196	984	108.2	1 274.4	91.8	157.8	900.0	2 855.8	2 611.4	5 430.9	73.2	79	74
234	Women's and children's undergarments	557	419	66.9	835.0	55.5	102.0	580.0	2 070.7	1 736.9	3 799.8	46.8	(NA)	(NA)
2341	Women's and children's underwear	429	331	53.0	636.1	45.8	83.8	477.6	1 475.1	1 222.5	2 690.7	40.2	88	87
2342	Brassieres, girdles, and allied garments	128	88	13.8	198.8	9.7	18.2	102.4	595.6	514.4	1 109.1	6.7	84	89
235	Hats, caps, and millinery	461	169	16.9	198.5	14.3	25.5	144.5	360.6	292.1	652.9	8.2	96	99
2353	Hats, caps, and millinery	461	169	16.9	198.5	14.3	25.5	144.5	360.6	292.1	652.9	8.2	96	99
236	Girls' and children's outerwear	834	572	71.7	825.2	60.9	107.3	608.3	1 966.5	1 732.6	3 680.3	34.4	(NA)	(NA)
2361	Girls' and children's dresses and blouses	450	304	28.2	325.7	23.6	42.1	232.9	741.4	654.3	1 385.4	12.2	83	73
2369	Girls' and children's outerwear, n.e.c.	384	268	43.6	499.5	37.3	65.2	375.4	1 225.1	1 078.3	2 294.8	22.3	72	85
237	Fur goods	380	17	2.1	48.2	1.5	2.7	28.1	136.8	292.6	422.6	1.9	99	99
2371	Fur goods	380	17	2.1	48.2	1.5	2.7	28.1	136.8	292.6	422.6	1.9	99	99
238	Miscellaneous apparel and accessories	986	436	41.0	523.4	33.0	59.3	343.1	1 168.5	1 129.4	2 279.6	16.1	(NA)	(NA)
2381	Fabric dress and work gloves	81	57	4.9	47.5	4.3	7.2	36.9	97.7	80.8	180.2	1.5	95	83
2384	Robes and dressing gowns	98	76	9.0	106.3	7.5	13.3	72.3	242.5	311.1	547.2	3.9	89	70
2385	Waterproof outerwear	69	39	6.4	86.3	5.3	9.5	61.3	174.3	165.2	337.7	3.2	90	87
2386	Leather and sheep-lined clothing	131	32	2.1	33.8	1.7	2.9	22.4	92.1	110.3	201.8	.9	95	99
2387	Apparel belts	266	127	10.5	151.9	7.8	14.9	86.2	340.6	295.4	629.8	3.2	92	94
2389	Apparel and accessories, n.e.c.	341	105	8.1	97.5	6.4	11.4	64.0	221.4	166.6	382.9	3.4	91	66
239	Miscellaneous fabricated textile products	6 822	1 809	195.2	3 115.0	158.4	296.7	2 180.7	6 969.3	8 906.8	15 751.9	248.7	(NA)	(NA)
2391	Curtains and draperies	1 246	236	26.7	337.6	21.1	38.6	226.3	722.8	811.0	1 527.6	13.3	94	93
2392	Housefurnishings, n.e.c.	944	401	49.5	699.5	41.6	81.4	500.1	1 738.7	2 814.6	4 497.9	43.6	93	89
2393	Textile bags	261	116	8.8	117.5	7.3	13.3	75.5	240.7	333.0	567.9	6.2	91	86
2394	Canvas and related products	1 270	194	16.5	267.7	12.4	23.5	168.7	559.5	516.2	1 065.6	21.1	94	96
2395	Pleating and stitching	688	169	14.3	177.9	11.8	21.3	122.3	408.3	363.3	760.4	13.6	84	96
2396	Automotive and apparel trimmings	1 228	328	42.6	977.2	33.8	62.8	719.7	1 972.6	2 521.3	4 467.3	109.3	98	95
2397	Schiffli machine embroideries	269	52	5.8	96.9	4.9	9.1	70.1	164.2	133.7	296.2	5.8	94	98
2399	Fabricated textile products, n.e.c.	916	313	31.2	440.8	25.5	46.7	298.1	1 162.5	1 413.6	2 569.0	35.8	95	92
24	Lumber and wood products	33 982	7 368	698.8	12 706.6	581.1	1 156.7	9 516.5	28 590.9	41 180.9	69 607.9	1 828.5	(NA)	(NA)
241	Logging	11 952	821	87.4	1 549.8	73.6	134.2	1 227.7	4 164.3	6 905.9	11 071.6	350.8	97	94
2411	Logging	11 952	821	87.4	1 549.8	73.6	134.2	1 227.7	4 164.3	6 905.9	11 071.6	350.8	97	94
242	Sawmills and planing mills	6 696	2 057	178.9	3 265.7	156.0	330.9	2 649.4	7 634.6	11 474.8	19 070.0	578.9	(NA)	(NA)
2421	Sawmills and planing mills, general	5 724	1 682	146.8	2 792.2	127.9	274.5	2 278.2	6 719.3	10 522.4	17 205.9	509.4	94	94
2426	Hardwood dimension and flooring mills	737	343	29.9	440.8	26.2	53.2	345.4	854.3	866.8	1 714.5	66.3	91	91
2429	Special product sawmills, n.e.c.	235	32	2.2	32.7	1.9	3.2	25.8	60.9	85.6	149.6	3.2	99	95
243	Millwork, plywood, and structural members	7 930	2 322	240.6	4 669.2	196.8	396.8	3 429.9	9 806.3	12 827.4	22 532.9	461.6	(NA)	(NA)
2431	Millwork	2 782	855	89.0	1 809.8	71.6	140.6	1 302.8	3 800.3	5 455.8	9 197.4	171.8	95	96
2434	Wood kitchen cabinets	3 714	668	67.6	1 197.2	54.2	109.0	841.7	2 528.5	1 928.6	4 423.1	102.0	96	98
2435	Hardwood veneer and plywood	310	213	20.5	339.6	17.4	35.2	246.4	750.6	1 320.9	2 057.5	31.5	92	95
2436	Softwood veneer and plywood	231	190	38.9	888.0	35.1	76.9	766.6	1 956.0	2 962.2	4 926.0	109.9	87	95
2439	Structural wood members, n.e.c.	893	396	24.6	434.7	18.5	35.1	272.3	770.8	1 159.9	1 928.8	46.5	97	95
244	Wood containers	2 216	566	37.1	481.3	31.2	56.0	342.6	873.5	1 198.3	2 067.9	52.2	(NA)	(NA)
2441	Nailed wood boxes and shooks	308	95	5.9	84.7	4.9	9.1	57.4	146.5	182.0	325.0	5.5	90	79
2448	Wood pallets and skids	1 700	420	25.8	326.2	21.7	38.3	234.8	616.7	880.1	1 495.9	43.8	93	94
2449	Wood containers, n.e.c.	208	51	5.4	70.4	4.7	8.6	50.4	110.3	136.2	247.0	2.8	91	96
245	Wood buildings and mobile homes	1 077	571	64.8	1 200.5	50.2	96.8	778.1	2 452.6	4 071.4	6 512.5	115.5	(NA)	(NA)
2451	Mobile homes	395	315	39.9	734.2	32.2	62.6	505.3	1 466.0	2 639.9	4 102.4	58.8	99	99
2452	Prefabricated wood buildings	682	256	24.9	466.3	18.0	34.2	272.8	986.6	1 431.5	2 410.1	56.8	95	98
249	Miscellaneous wood products	4 111	1 031	90.0	1 540.1	73.2	142.0	1 088.8	3 659.6	4 703.2	8 352.9	269.5	(NA)	(NA)
2491	Wood preserving	539	203	11.8	207.5	9.1	18.2	140.4	546.3	1 618.2	2 166.9	44.3	96	95
2493	Reconstituted wood products	257	158	22.2	510.2	17.8	37.5	373.2	1 390.4	1 500.8	2 896.3	151.2	98	95
2499	Wood products, n.e.c.	3 315	670	56.0	822.4	46.3	86.3	575.2	1 723.0	1 584.2	3 289.7	74.1	95	94

See footnotes at end of table.

issued. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix]

1982														1987 SIC code
All establishments ¹		All employees		Production workers			Value added by manufac- ture (million dollars)	Cost of materials ² (million dollars)	Value of shipments ² (million dollars)	New capital expendi- tures ³ (million dollars)	Ratios			
Total (number)	With 20 employ- ees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)					Spe- cial- iza- tion (per- cent)	Cov- erage (per- cent)		
													23	
													233	
1 745	1 038	110.7	1 096.3	93.2	163.1	765.0	2 257.9	2 559.8	4 830.4	85.2	82	75	2339	
755	519	81.6	783.1	68.7	123.6	567.4	1 721.5	1 581.9	3 322.7	37.8	(NA)	(NA)	234	
604	422	67.8	640.8	57.4	104.0	478.1	1 350.8	1 247.5	2 602.4	30.4	91	97	2341	
151	97	13.8	142.3	11.3	19.5	89.3	370.8	334.5	720.3	7.5	93	92	2342	
419	172	15.7	156.7	14.0	24.4	117.6	285.3	235.9	522.3	8.1	(NA)	(NA)	235	
419	172	15.7	156.7	14.0	24.4	117.6	285.3	235.9	522.3	8.1	(NA)	(NA)	2353	
968	657	71.3	671.2	61.0	109.0	492.4	1 445.8	1 257.4	2 711.4	30.1	(NA)	(NA)	236	
556	391	37.7	357.3	32.4	57.5	259.7	745.9	667.6	1 417.7	11.6	90	87	2361	
412	266	33.7	313.9	28.6	51.5	232.7	699.9	589.8	1 293.7	18.5	(NA)	(NA)	2369	
504	43	3.4	59.6	2.5	4.5	41.2	131.6	287.2	419.3	.3	100	99	237	
504	43	3.4	59.6	2.5	4.5	41.2	131.6	287.2	419.3	.3	100	99	2371	
1 223	527	50.0	512.5	42.1	74.1	357.9	1 097.5	1 009.4	2 118.2	24.7	(NA)	(NA)	238	
102	64	6.8	51.2	6.1	9.2	41.6	104.7	98.9	208.4	3.4	89	85	2381	
135	83	9.3	88.0	8.1	14.8	64.4	193.1	205.6	403.6	3.9	94	81	2384	
112	76	9.3	101.1	8.0	13.9	74.5	246.0	205.8	449.2	4.6	89	88	2385	
186	52	4.3	48.9	3.6	6.4	36.4	95.7	122.9	221.3	.9	92	94	2386	
319	143	11.7	137.1	9.2	17.2	81.5	305.4	250.6	556.5	8.3	89	95	2387	
369	109	8.7	86.2	7.1	12.6	59.5	152.7	125.6	279.2	3.6	91	91	2389	
6 611	1 727	173.8	2 120.3	141.8	260.5	1 530.8	4 498.4	5 745.3	10 280.8	157.9	(NA)	(NA)	239	
1 371	254	24.1	233.7	19.7	33.8	170.5	442.1	614.9	1 062.0	6.3	94	91	2391	
958	399	49.3	518.2	39.8	77.6	369.0	1 249.0	1 994.3	3 262.2	38.8	92	87	2392	
249	108	7.7	89.5	6.5	12.2	64.8	167.8	252.7	421.8	5.9	88	83	2393	
1 128	162	14.8	181.2	11.3	21.1	117.8	367.7	384.5	752.3	17.8	94	93	2394	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	2395	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	2396	
366	75	7.0	97.4	5.8	11.2	73.4	188.9	116.4	303.3	7.4	95	96	2397	
801	259	25.1	290.7	20.5	36.8	197.7	629.9	841.7	1 475.9	23.5	93	91	2399	
32 984	6 313	576.4	8 444.5	479.3	893.9	6 446.1	15 376.6	27 125.5	42 934.9	1 342.4	(NA)	(NA)	24	
11 658	657	80.8	1 207.9	69.1	121.3	1 003.7	2 501.9	5 630.2	8 274.0	249.0	96	95	241	
11 658	657	80.8	1 207.9	69.1	121.3	1 003.7	2 501.9	5 630.2	8 274.0	249.0	96	95	2411	
7 403	1 909	157.7	2 305.9	136.6	257.3	1 877.1	3 747.9	7 231.3	11 132.4	435.6	(NA)	(NA)	242	
6 316	1 556	131.9	2 020.2	113.9	215.5	1 651.7	3 237.5	6 674.2	10 065.2	408.4	93	91	2421	
789	306	22.9	252.6	20.1	37.8	199.3	445.4	465.6	912.6	24.3	91	92	2426	
298	47	3.0	33.1	2.7	4.0	26.1	65.0	91.5	154.6	2.9	96	92	2429	
6 545	1 733	165.3	2 596.1	134.8	260.6	1 959.6	4 460.4	7 134.5	11 682.8	261.6	(NA)	(NA)	243	
2 321	642	56.8	895.4	44.7	83.5	645.6	1 712.6	2 502.0	4 248.3	79.9	93	94	2431	
2 964	489	43.6	606.9	34.6	67.1	442.5	1 144.3	906.8	2 060.7	43.8	96	97	2434	
306	213	17.8	241.0	15.1	28.5	177.0	441.3	844.9	1 304.4	22.2	93	94	2435	
250	199	34.9	667.3	31.1	63.7	568.6	831.5	2 363.9	3 221.5	99.7	84	94	2436	
704	190	12.2	185.5	9.3	17.8	126.0	330.5	516.8	847.9	16.1	96	95	2439	
2 250	524	35.8	390.9	30.3	54.6	286.8	703.0	924.6	1 634.9	40.0	(NA)	(NA)	244	
338	90	6.4	76.5	5.3	9.4	56.0	137.9	166.7	306.8	6.9	90	81	2441	
1 677	362	22.1	230.4	18.4	32.7	165.0	420.5	589.1	1 012.3	29.4	92	93	2448	
235	72	7.4	84.0	6.5	12.5	65.9	144.6	168.8	315.8	3.7	95	97	2449	
1 163	612	59.6	880.1	46.0	84.7	573.5	1 740.8	3 204.2	4 955.4	65.1	(NA)	(NA)	245	
516	406	42.8	622.4	34.6	63.9	430.3	1 187.4	2 410.1	3 606.4	47.7	99	99	2451	
647	206	16.8	257.8	11.4	20.8	143.2	553.4	794.0	1 349.0	17.4	97	99	2452	
3 965	878	77.1	1 063.5	62.5	115.4	745.3	2 222.6	3 000.7	5 255.4	291.1	(NA)	(NA)	249	
524	184	10.9	159.4	8.6	16.5	108.2	383.7	978.5	1 360.2	35.9	98	96	2491	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	2493	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	2499	

Table 2. Statistics for Industry Groups and Industries: 1987 and 1982—Con.

[Data in this table may differ from the preliminary industry reports previously issued. These differences are due to corrections which were made for errors identified after the industry reports were

1987 SIC code	Industry group and industry	1987												Ratios	
		All establishments ¹		All employees		Production workers			Value added by manu- facture (million dollars)	Cost of materials ² (million dollars)	Value of shipments ² (million dollars)	New capital expendi- tures ³ (million dollars)			
		Total (number)	With 20 employ- ees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)							
25	Furniture and fixtures -----	11 613	4 054	508.5	9 047.6	408.0	801.5	6 230.1	20 239.1	17 068.0	37 137.5	882.0	(NA)	(NA)	
251	Household furniture -----	5 606	2 067	283.7	4 449.7	240.3	469.8	3 282.8	9 480.7	9 172.9	18 541.6	378.3	(NA)	(NA)	
2511	Wood household furniture ..	2 946	862	135.4	2 014.1	118.6	234.6	1 568.6	4 263.0	3 753.1	7 949.0	195.6	95	96	
2512	Upholstered household furniture -----	1 146	572	82.1	1 292.1	69.5	132.3	980.8	2 652.0	2 626.6	5 249.8	76.7	90	95	
2514	Metal household furniture ..	412	205	28.9	483.6	23.3	45.9	320.0	1 008.7	1 052.5	2 051.7	35.3	88	92	
2515	Mattresses and bedsprings -----	841	337	24.7	458.0	18.2	35.4	262.3	1 186.0	1 285.6	2 464.8	33.6	94	84	
2517	Wood television and radio cabinets -----	80	36	5.8	90.2	5.0	10.1	69.7	163.7	180.9	346.2	7.1	89	82	
2519	Household furniture, n.e.c. ..	181	55	6.7	111.7	5.7	11.4	81.5	207.3	274.2	480.1	30.2	84	84	
252	Office furniture -----	984	438	80.7	1 788.4	60.1	117.9	1 154.6	4 758.3	2 815.4	7 553.2	282.3	(NA)	(NA)	
2521	Wood office furniture -----	647	232	31.0	561.0	24.3	48.3	378.2	1 278.8	827.6	2 099.6	48.2	93	90	
2522	Office furniture, except wood -----	337	206	49.7	1 227.4	35.8	69.6	776.4	3 479.4	1 987.9	5 453.6	234.1	94	95	
253	Public building and related furniture -----	484	202	20.8	377.3	15.7	31.4	244.7	844.4	981.2	1 821.8	32.0	91	90	
2531	Public building and related furniture -----	484	202	20.8	377.3	15.7	31.4	244.7	844.4	981.2	1 821.8	32.0	91	90	
254	Partitions and fixtures -----	2 455	854	73.6	1 541.4	54.5	109.6	991.3	3 094.2	2 431.1	5 500.5	124.4	(NA)	(NA)	
2541	Wood partitions and fixtures -----	1 865	557	40.5	860.8	30.2	60.9	565.9	1 608.5	1 211.1	2 814.0	65.6	93	90	
2542	Partitions and fixtures, except wood -----	590	297	33.0	680.6	24.3	48.8	425.5	1 485.7	1 219.9	2 686.4	58.8	89	93	
259	Miscellaneous furniture and fixtures -----	2 084	493	49.7	890.7	37.3	72.8	556.5	2 061.5	1 667.3	3 720.5	65.0	(NA)	(NA)	
2591	Drapery hardware and blinds and shades -----	488	141	20.4	338.5	15.7	30.9	221.5	889.8	873.9	1 758.3	26.6	99	96	
2599	Furniture and fixtures, n.e.c. -----	1 596	352	29.3	552.3	21.6	42.0	335.1	1 171.7	793.5	1 962.2	38.4	93	92	
26	Paper and allied products ----	6 342	4 163	610.9	16 821.0	465.7	975.0	11 758.7	49 725.8	58 788.4	108 249.7	5 905.1	(NA)	(NA)	
261	Pulp mills -----	39	38	14.2	536.5	11.1	24.1	397.5	2 246.5	1 955.4	4 214.9	358.5	89	69	
2611	Pulp mills -----	39	38	14.2	536.5	11.1	24.1	397.5	2 246.5	1 955.4	4 214.9	358.5	89	69	
262	Paper mills -----	281	269	129.3	4 589.3	99.3	210.9	3 396.0	13 694.4	15 169.6	28 901.3	2 762.9	91	96	
2621	Paper mills -----	281	269	129.3	4 589.3	99.3	210.9	3 396.0	13 694.4	15 169.6	28 901.3	2 762.9	91	96	
263	Paperboard mills -----	199	203	53.6	1 895.9	41.1	90.7	1 406.0	7 001.7	6 980.2	13 957.3	794.9	90	90	
2631	Paperboard mills -----	199	203	53.6	1 895.9	41.1	90.7	1 406.0	7 001.7	6 980.2	13 957.3	794.9	90	90	
265	Paperboard containers and boxes -----	2 796	1 997	193.5	4 615.9	147.3	304.4	3 053.1	9 814.7	16 116.7	25 827.8	825.8	(NA)	(NA)	
2652	Setup paperboard boxes ----	199	120	8.6	130.6	7.2	13.8	88.1	235.3	202.1	435.3	10.3	96	78	
2653	Corrugated and solid fiber boxes -----	1 611	1 171	106.2	2 614.9	77.5	161.0	1 641.9	5 488.4	10 690.4	16 114.7	468.8	99	99	
2655	Fiber cans, drums, and similar products -----	281	187	12.5	279.2	10.1	20.6	203.7	625.2	897.1	1 522.4	71.0	92	93	
2656	Sanitary food containers ----	91	71	15.7	337.6	12.7	25.5	251.0	884.3	1 190.6	2 064.0	95.3	87	88	
2657	Folding paperboard boxes ----	614	448	50.5	1 253.5	39.8	83.5	868.5	2 581.5	3 136.6	5 691.5	180.4	95	96	
267	Miscellaneous converted paper products -----	3 027	1 656	220.3	5 183.4	166.9	344.9	3 506.1	16 968.5	18 566.4	35 348.4	1 163.0	(NA)	(NA)	
2671	Paper coated and laminated, packaging -----	118	110	15.2	412.2	10.6	22.6	258.9	1 006.4	1 450.5	2 433.1	129.3	85	82	
2672	Paper coated and laminated, n.e.c. -----	424	227	26.9	722.9	18.5	39.3	433.9	2 312.3	2 605.8	4 904.3	166.5	91	79	
2673	Bags: plastics, laminated, and coated -----	489	301	37.1	796.6	29.4	61.0	549.9	2 241.5	2 454.9	4 687.1	199.6	81	91	
2674	Bags: uncoated paper and multiwall -----	132	111	17.1	346.4	14.3	29.0	263.9	869.0	1 585.1	2 438.8	45.7	93	94	
2675	Die-cut paper and board ----	400	169	15.5	304.2	12.3	24.7	201.8	665.0	1 082.4	1 740.3	29.4	89	87	
2676	Sanitary paper products ----	132	109	38.1	1 144.6	29.6	61.9	852.1	6 272.1	5 441.5	11 602.0	429.4	96	99	
2677	Envelopes -----	302	218	28.0	616.1	21.2	44.1	409.3	1 204.5	1 417.6	2 623.3	61.9	98	96	
2678	Stationery products -----	190	93	11.5	211.4	8.6	16.6	138.4	530.3	694.7	1 229.3	25.4	73	74	
2679	Converted paper products, n.e.c. -----	840	318	30.8	628.9	22.4	45.5	397.7	1 867.2	1 833.9	3 690.2	75.9	91	89	
27	Printing and publishing -----	61 774	12 595	1 491.9	33 515.0	796.9	1 541.6	15 669.9	89 207.9	46 028.3	134 901.5	4 897.1	(NA)	(NA)	
271	Newspapers -----	9 079	2 613	434.6	9 037.1	148.4	262.4	2 985.6	24 300.0	7 523.1	31 828.6	1 527.1	96	100	
2711	Newspapers -----	9 079	2 613	434.6	9 037.1	148.4	262.4	2 985.6	24 300.0	7 523.1	31 828.6	1 527.1	96	100	
272	Periodicals -----	4 017	874	111.1	3 158.1	18.4	33.5	372.2	11 802.1	5 804.3	17 614.9	253.2	95	96	
2721	Periodicals -----	4 017	874	111.1	3 158.1	18.4	33.5	372.2	11 802.1	5 804.3	17 614.9	253.2	95	96	
273	Books -----	2 856	690	111.5	2 752.5	50.4	96.6	982.2	10 315.5	4 785.2	14 944.8	384.6	(NA)	(NA)	
2731	Book publishing -----	2 294	420	68.0	1 790.7	16.0	28.8	306.4	8 322.3	3 515.3	11 691.2	230.1	91	95	
2732	Book printing -----	562	270	43.5	961.8	34.4	67.8	675.9	1 993.3	1 269.8	3 253.6	154.5	89	88	
274	Miscellaneous publishing ----	2 376	600	68.9	1 482.6	24.1	43.9	364.6	5 514.2	1 738.1	7 241.9	123.9	98	90	
2741	Miscellaneous publishing --	2 376	600	68.9	1 482.6	24.1	43.9	364.6	5 514.2	1 738.1	7 241.9	123.9	98	90	
275	Commercial printing -----	36 103	5 575	553.6	12 294.1	401.5	797.5	7 890.5	25 025.1	19 841.4	44 772.6	2 015.1	(NA)	(NA)	
2752	Commercial printing, lithographic -----	24 961	4 093	403.2	9 130.4	293.2	583.5	5 887.0	18 173.6	14 573.9	32 703.8	1 542.1	94	93	
2754	Commercial printing, gravure -----	332	92	23.8	668.5	19.1	39.4	494.2	1 534.2	1 545.5	3 059.8	174.2	84	94	
2759	Commercial printing, n.e.c. ..	10 810	1 390	126.6	2 495.3	89.2	174.7	1 509.2	5 317.3	3 722.0	9 009.1	298.8	91	87	
276	Manifold business forms ----	853	586	53.2	1 276.4	37.2	76.8	822.1	3 882.8	3 477.3	7 350.4	207.5	94	97	
2761	Manifold business forms ----	853	586	53.2	1 276.4	37.2	76.8	822.1	3 882.8	3 477.3	7 350.4	207.5	94	97	
277	Greeting cards -----	162	63	20.7	459.8	11.2	20.6	197.3	2 196.9	751.6	2 879.9	59.9	81	95	
2771	Greeting cards -----	162	63	20.7	459.8	11.2	20.6	197.3	2 196.9	751.6	2 879.9	59.9	81	95	

See footnotes at end of table.

issued. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix]

1982														1987 SIC code
All establishments ¹		All employees		Production workers			Value added by manufac- ture ⁴ (million dollars)	Cost of materials ² (million dollars)	Value of shipments ² (million dollars)	New capital expendi- tures ³ (million dollars)	Ratios			
Total (number)	With 20 employ- ees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)					Spe- cial- iza- tion (per- cent)	Cov- erage (per- cent)		
10 003	3 629	436.0	6 083.7	350.5	651.2	4 189.1	12 828.9	11 228.9	24 128.6	566.2	(NA)	(NA)	25	
5 475	2 076	263.0	3 161.7	221.4	402.6	2 309.8	6 455.0	6 278.2	12 775.8	245.9	(NA)	(NA)	251	
2 607	833	125.6	1 402.7	109.2	197.2	1 070.6	2 715.0	2 317.8	5 056.6	119.1	95	96	2511	
1 227	602	70.6	849.9	59.8	105.6	637.2	1 745.3	1 761.5	3 505.3	57.2	91	95	2512	
454	205	27.0	362.4	21.5	41.8	240.3	807.0	774.1	1 590.7	25.4	89	92	2514	
902	336	25.4	357.4	19.0	35.6	218.9	882.4	1 047.4	1 935.4	25.0	95	88	2515	
83	37	7.0	88.6	5.9	10.8	66.4	152.1	151.8	306.6	7.3	91	91	2517	
202	63	7.4	100.7	6.0	11.7	76.4	153.3	225.6	381.1	11.9	80	93	2519	
700	337	58.7	1 050.9	43.8	85.2	678.0	2 476.9	1 655.0	4 150.1	146.8	(NA)	(NA)	252	
446	175	21.0	296.1	16.6	32.0	194.0	659.0	424.2	1 087.4	32.6	91	84	2521	
254	162	37.8	754.8	27.3	53.2	483.9	1 817.9	1 230.9	3 062.7	114.2	90	91	2522	
413	181	18.8	294.9	13.8	26.2	175.8	578.8	521.6	1 102.8	24.8	84	86	253	
413	181	18.8	294.9	13.8	26.2	175.8	578.8	521.6	1 102.8	24.8	84	86	2531	
2 148	687	59.7	1 025.0	44.9	85.8	674.0	2 079.5	1 620.7	3 709.9	87.3	(NA)	(NA)	254	
1 580	388	31.7	543.0	24.3	46.9	379.6	1 017.1	746.3	1 766.7	39.2	92	91	2541	
568	299	28.0	482.0	20.5	38.9	294.5	1 062.5	874.4	1 943.2	48.1	89	91	2542	
1 267	348	35.8	551.1	26.5	51.4	351.5	1 238.7	1 153.4	2 390.1	61.3	(NA)	(NA)	259	
435	127	15.7	223.7	11.7	22.0	146.8	556.6	557.6	1 114.4	31.3	97	97	2591	
832	221	20.1	327.4	14.9	29.4	204.8	682.0	595.8	1 275.7	30.0	90	82	2599	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	26	
43	41	16.7	467.5	12.8	24.8	344.1	1 113.8	1 986.5	3 110.4	658.6	85	72	261	
43	41	16.7	467.5	12.8	24.8	344.1	1 113.8	1 986.5	3 110.4	658.6	85	72	2611	
299	281	129.0	3 430.6	100.1	208.4	2 563.6	8 954.1	12 136.7	20 994.6	1 856.1	92	96	262	
299	281	129.0	3 430.6	100.1	208.4	2 563.6	8 954.1	12 136.7	20 994.6	1 856.1	92	96	2621	
222	212	55.6	1 501.5	43.0	88.5	1 117.7	3 739.8	5 842.3	9 531.1	1 286.7	89	90	263	
222	212	55.6	1 501.5	43.0	88.5	1 117.7	3 739.8	5 842.3	9 531.1	1 286.7	89	90	2631	
2 781	1 936	187.5	3 516.7	140.7	276.2	2 294.3	7 395.8	11 791.9	19 192.3	496.1	(NA)	(NA)	265	
265	165	10.6	134.7	8.9	16.7	91.3	250.2	184.5	433.2	10.0	96	83	2652	
1 492	1 066	94.4	1 861.8	67.4	132.0	1 147.9	3 659.0	6 883.1	10 558.1	283.5	99	99	2653	
307	191	14.1	252.5	11.4	22.1	184.3	574.5	897.9	1 473.5	31.1	95	92	2655	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	2656	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	2657	
3 006	1 597	213.3	3 960.6	161.7	319.4	2 665.9	12 014.1	14 658.3	26 700.7	786.2	(NA)	(NA)	267	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	2671	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	2672	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	2673	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	2674	
398	171	15.9	245.9	12.6	23.7	168.6	708.7	975.4	1 680.1	32.7	91	91	2675	
138	103	36.7	863.3	28.8	59.0	641.3	4 341.0	4 736.6	9 086.0	271.1	94	98	2676	
296	216	24.4	428.7	19.0	37.0	287.5	853.6	919.9	1 771.3	45.1	98	94	2677	
214	112	12.6	193.1	9.5	18.3	127.1	433.1	600.7	1 034.0	21.4	79	73	2678	
809	317	30.4	496.3	22.3	43.7	314.4	1 291.3	1 336.0	2 637.7	74.3	88	82	2679	
53 406	10 871	1 291.8	22 706.9	710.9	1 313.0	11 307.4	54 423.4	31 377.2	85 796.9	3 213.2	(NA)	(NA)	27	
8 846	2 554	401.5	6 554.7	147.2	259.3	2 386.6	15 275.3	6 006.4	21 276.3	1 029.2	96	100	271	
8 846	2 554	401.5	6 554.7	147.2	259.3	2 386.6	15 275.3	6 006.4	21 276.3	1 029.2	96	100	2711	
3 328	690	94.0	1 986.1	17.4	31.9	243.2	6 910.9	4 568.1	11 478.0	194.8	93	97	272	
3 328	690	94.0	1 986.1	17.4	31.9	243.2	6 910.9	4 568.1	11 478.0	194.8	93	97	2721	
2 811	727	111.7	2 089.8	49.7	95.5	779.6	6 721.4	3 368.2	10 132.4	272.7	(NA)	(NA)	273	
2 130	419	67.1	1 327.3	15.2	30.8	237.1	5 291.5	2 420.0	7 740.0	174.1	94	91	2731	
681	308	44.7	762.5	34.5	64.7	542.6	1 429.9	948.1	2 392.4	98.6	89	84	2732	
2 057	430	45.3	705.9	17.9	29.2	206.2	1 958.2	909.6	2 871.3	67.1	95	86	274	
2 057	430	45.3	705.9	17.9	29.2	206.2	1 958.2	909.6	2 871.3	67.1	95	86	2741	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	275	
17 842	3 184	311.9	5 746.4	234.1	434.8	3 931.9	11 045.1	8 406.4	19 441.6	958.1	91	93	2752	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	2754	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	2759	
810	530	49.5	934.0	36.2	71.1	634.3	2 490.7	2 563.1	5 058.7	135.4	96	97	276	
810	530	49.5	934.0	36.2	71.1	634.3	2 490.7	2 563.1	5 058.7	135.4	96	97	2761	
154	54	20.8	344.2	11.7	20.2	155.2	1 348.8	554.6	1 893.6	37.2	75	94	277	
154	54	20.8	344.2	11.7	20.2	155.2	1 348.8	554.6	1 893.6	37.2	75	94	2771	

Table 2. Statistics for Industry Groups and Industries: 1987 and 1982—Con.

[Data in this table may differ from the preliminary industry reports previously issued. These differences are due to corrections which were made for errors identified after the industry reports were

1987 SIC code	Industry group and industry	1987												Ratios	
		All establishments ¹		All employees		Production workers			Value added by manu- facture (million dollars)	Cost of materials ² (million dollars)	Value of shipments ² (million dollars)	New capital expendi- tures ³ (million dollars)			
		Total (number)	With 20 employ- ees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)							
27	Printing and publishing—Con.														
278	Blankbooks and bookbinding	1 545	692	68.5	1 260.9	53.9	105.4	853.5	2 918.4	1 174.1	4 072.3	135.2	(NA)	(NA)	
2782	Blankbooks and looseleaf binders	511	326	39.1	767.9	29.5	57.7	496.7	2 018.8	899.8	2 904.3	87.5	89	93	
2789	Bookbinding and related work	1 034	366	29.4	493.0	24.4	47.7	356.7	899.6	274.2	1 168.0	47.7	94	94	
279	Printing trade services	4 783	902	69.7	1 793.5	51.9	104.9	1 201.8	3 252.9	933.3	4 195.9	190.7	(NA)	(NA)	
2791	Typesetting	3 365	438	37.8	816.8	29.6	58.6	568.7	1 492.8	312.4	1 807.4	74.6	95	82	
2796	Platemaking services	1 418	464	32.0	976.7	22.2	46.3	633.1	1 760.2	621.0	2 388.5	116.1	96	89	
28	Chemicals and allied products	12 109	4 917	816.4	25 065.3	464.3	955.6	12 327.1	121 241.8	109 354.2	230 089.8	8 586.9	(NA)	(NA)	
281	Industrial inorganic chemicals	1 405	533	94.3	3 121.8	50.6	109.8	1 526.3	11 154.0	8 490.7	19 678.0	762.8	(NA)	(NA)	
2812	Alkalies and chlorine	45	31	5.0	165.3	3.5	7.3	110.0	720.4	805.5	1 532.8	66.7	85	65	
2813	Industrial gases	601	136	8.2	243.7	4.1	8.6	116.8	1 616.7	1 055.3	2 670.4	105.1	97	94	
2816	Inorganic pigments	92	56	8.5	270.5	5.3	10.8	151.0	1 413.0	1 019.4	2 420.5	77.6	93	90	
2819	Industrial inorganic chemicals, n.e.c.	667	310	72.6	2 442.3	37.8	83.1	1 148.6	7 403.9	5 610.5	13 054.3	513.4	91	80	
282	Plastics materials and synthetics	680	431	123.4	4 034.8	84.4	177.9	2 460.7	17 882.0	23 318.8	41 024.5	1 827.1	(NA)	(NA)	
2821	Plastics materials and resins	484	320	56.2	2 002.6	34.9	75.6	1 150.4	10 911.7	15 372.6	26 247.6	1 170.1	87	81	
2822	Synthetic rubber	112	38	10.9	402.6	7.1	15.1	233.8	1 266.3	2 117.2	3 335.2	173.1	79	73	
2823	Cellulosic manmade fibers	7	7	10.5	280.8	7.9	16.5	180.7	638.1	669.9	1 321.3	23.8	(D)	(D)	
2824	Organic fibers, noncellulosic	77	66	45.8	1 348.7	34.5	70.7	895.8	5 066.0	5 159.1	10 120.4	460.1	85	(NA)	
283	Drugs	1 356	661	172.2	5 312.3	79.7	155.1	1 895.5	28 176.4	11 420.3	39 288.1	1 751.4	(NA)	(NA)	
2833	Medicinals and botanicals	225	85	11.6	378.5	6.1	12.0	184.7	1 784.3	1 612.8	3 352.9	114.3	91	69	
2834	Pharmaceutical preparations	732	364	131.7	4 169.4	59.9	117.4	1 456.7	23 890.6	8 465.5	32 102.2	1 471.4	89	97	
2835	Diagnostic substances	157	97	15.6	440.8	6.8	13.6	146.4	1 553.7	663.1	2 211.4	95.6	89	68	
2836	Biological products, except diagnostic	242	115	13.3	323.7	6.8	12.1	107.8	947.9	678.9	1 621.7	70.2	87	76	
284	Soaps, cleaners, and toilet goods	2 399	813	119.8	3 096.1	72.6	147.4	1 576.2	21 620.4	13 174.0	34 711.5	786.3	(NA)	(NA)	
2841	Soap and other detergents	764	230	31.7	955.7	19.3	39.3	541.2	5 868.5	5 667.4	11 546.8	338.7	80	91	
2842	Polishes and sanitation goods	723	211	20.5	497.5	13.2	26.4	261.1	3 635.6	1 934.7	5 565.9	118.0	72	76	
2843	Surface active agents	218	100	9.1	290.1	4.7	10.1	135.1	1 311.0	1 690.2	3 001.8	104.1	75	74	
2844	Toilet preparations	694	272	58.5	1 352.8	35.4	71.5	638.8	10 805.3	3 881.7	14 597.1	225.5	95	87	
285	Paints and allied products	1 431	630	55.4	1 493.5	28.3	56.6	625.4	6 238.3	6 512.7	12 722.8	275.3	97	97	
2851	Paints and allied products	1 431	630	55.4	1 493.5	28.3	56.6	625.4	6 238.3	6 512.7	12 722.8	275.3	97	97	
286	Industrial organic chemicals	961	580	125.4	4 532.5	73.2	153.8	2 433.6	21 542.3	29 915.4	51 460.1	2 374.8	(NA)	(NA)	
2861	Gum and wood chemicals	77	29	2.6	57.4	2.1	4.1	42.0	212.6	275.4	486.5	35.2	86	73	
2865	Cyclic crudes and intermediates	185	120	22.6	781.7	13.2	27.4	431.9	3 396.0	5 481.8	8 820.7	378.5	79	60	
2869	Industrial organic chemicals, n.e.c.	699	431	100.1	3 693.4	57.8	122.2	1 959.7	17 933.7	24 158.1	42 152.9	1 961.0	73	84	
287	Agricultural chemicals	973	334	40.1	1 169.8	24.4	50.9	623.4	6 379.2	7 879.4	14 350.8	361.7	(NA)	(NA)	
2873	Nitrogenous fertilizers	166	72	7.4	223.3	4.5	9.6	125.6	872.4	1 496.0	2 439.6	38.2	93	80	
2874	Phosphatic fertilizers	77	42	9.3	286.2	6.1	13.2	172.9	1 166.6	2 613.0	3 820.8	63.4	92	(NA)	
2875	Fertilizers, mixing only	452	115	7.5	145.1	4.7	9.5	71.1	465.6	1 248.4	1 710.4	26.3	98	(NA)	
2879	Agricultural chemicals, n.e.c.	278	105	15.9	515.2	9.1	18.6	253.8	3 874.6	2 521.9	6 380.0	233.9	77	83	
289	Miscellaneous chemical products	2 904	935	85.7	2 304.5	51.1	104.0	1 186.1	8 249.0	8 642.8	16 854.1	447.6	(NA)	(NA)	
2891	Adhesives and sealants	715	275	21.0	553.6	11.9	24.3	256.8	1 997.8	2 703.3	4 688.2	111.8	91	87	
2892	Explosives	132	45	13.8	351.6	9.2	18.0	206.0	764.2	364.1	1 120.8	22.6	98	93	
2893	Printing ink	504	185	11.1	311.1	6.3	13.1	153.5	927.0	1 467.9	2 392.2	38.0	97	97	
2895	Carbon black	22	21	1.8	64.7	1.4	3.0	46.2	272.7	306.8	569.7	39.2	100	100	
2899	Chemical preparations, n.e.c.	1 531	409	38.0	1 023.5	22.4	45.7	523.6	4 287.3	3 800.7	8 083.2	235.9	83	86	
29	Petroleum and coal products	2 254	754	115.9	3 999.9	76.5	158.3	2 462.8	18 398.9	113 171.6	130 683.5	2 346.6	(NA)	(NA)	
291	Petroleum refining	331	224	74.8	2 853.0	50.2	103.6	1 801.8	14 128.2	105 217.0	118 507.0	2 041.1	99	97	
2911	Petroleum refining	331	224	74.8	2 853.0	50.2	103.6	1 801.8	14 128.2	105 217.0	118 507.0	2 041.1	99	97	
295	Asphalt paving and roofing materials	1 367	344	28.1	785.0	19.7	41.1	504.0	2 882.9	4 905.4	7 745.1	213.2	(NA)	(NA)	
2951	Asphalt paving mixtures and blocks	1 101	199	14.6	430.1	10.0	20.9	266.7	1 598.9	2 758.2	4 342.2	123.4	93	94	
2952	Asphalt felts and coatings	266	145	13.5	354.9	9.7	20.2	237.3	1 284.1	2 147.2	3 402.9	89.8	96	99	
299	Miscellaneous petroleum and coal products	556	186	13.0	361.8	6.7	13.6	157.0	1 387.7	3 049.2	4 431.5	92.3	(NA)	(NA)	
2992	Lubricating oils and greases	450	162	11.1	308.2	5.5	11.0	123.1	1 118.4	2 608.6	3 718.4	79.5	95	70	
2999	Petroleum and coal products, n.e.c.	106	24	1.9	53.6	1.2	2.6	33.9	269.3	440.6	713.1	12.9	95	95	

See footnotes at end of table.

issued. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix]

1982														1987 SIC code
All establishments ¹		All employees		Production workers			Value added by manufac- ture (million dollars)	Cost of materials ² (million dollars)	Value of shipments ² (million dollars)	New capital expendi- tures ³ (million dollars)	Ratios			
Total (number)	With 20 employ- ees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)					Spe- cial- iza- tion (per- cent)	Cov- erage (per- cent)		
1 487	631	61.2	903.1	49.7	92.6	635.6	1 963.5	854.2	2 802.9	77.9	(NA)	(NA)	27	
474	296	35.9	564.8	28.0	52.9	380.5	1 379.5	671.0	2 039.4	50.5	86	92	278 2782	
1 013	335	25.4	338.3	21.7	39.7	255.1	584.0	183.3	763.5	27.3	96	91	2789	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	279	
3 075	415	33.7	570.6	26.5	49.0	418.3	1 040.2	210.0	1 242.9	64.3	97	88	2791	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	2796	
11 901	4 779	872.6	20 835.7	508.6	1 003.5	10 543.8	77 314.8	92 556.9	170 736.9	9 086.8	(NA)	(NA)	28	
1 365	520	107.7	2 795.2	61.9	123.9	1 461.5	8 828.5	8 553.5	17 280.1	999.5	(NA)	(NA)	281	
51	33	7.6	215.7	5.0	9.8	134.9	728.8	856.3	1 570.5	134.4	81	53	2812	
563	105	7.3	174.0	4.3	9.9	100.8	1 055.3	967.2	2 019.3	223.7	98	91	2813	
106	63	11.2	271.3	6.8	13.3	148.6	723.0	892.8	1 630.0	128.9	88	88	2816 2819	
645	319	81.7	2 134.2	45.7	91.0	1 077.3	6 321.4	5 837.1	12 060.4	512.5	91	77	282	
606	409	141.0	3 450.6	94.4	182.9	2 051.9	9 401.5	18 800.3	28 428.1	1 676.6	(NA)	(NA)	2821	
440	308	54.7	1 433.9	32.8	67.4	790.0	4 746.0	10 807.3	15 769.2	898.8	87	77	2822	
78	35	11.9	343.7	7.6	15.0	197.5	908.9	2 226.8	3 156.4	246.4	80	78	2823	
18	9	14.2	291.0	10.8	21.0	194.5	428.7	806.8	1 239.9	88.4	(D)	(D)	2824	
70	57	60.2	1 382.0	43.1	79.6	869.9	3 317.9	4 959.4	8 262.7	442.9	85	81	283	
1 281	593	165.7	3 965.5	84.1	163.1	1 556.2	16 980.6	7 749.4	24 695.4	1 248.1	(NA)	(NA)	2833	
228	94	17.8	463.2	10.2	20.9	228.8	2 054.7	1 335.2	3 397.9	283.6	83	74	2834	
683	332	124.4	3 052.5	62.2	120.0	1 163.4	13 484.0	5 529.8	18 997.6	861.2	89	96	2835	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	2836	
2 379	804	127.3	2 581.1	75.4	148.0	1 291.3	15 281.8	10 686.8	26 031.4	650.1	(NA)	(NA)	284	
723	232	35.4	827.1	21.2	42.5	457.1	4 777.1	4 371.9	9 167.3	261.9	84	91	2841	
807	219	23.0	443.7	14.6	29.1	236.1	2 626.2	1 974.4	4 613.7	80.9	74	78	2842	
210	96	8.5	208.2	3.8	7.9	77.4	747.8	1 314.3	2 067.2	86.6	81	65	2843	
639	257	60.4	1 102.1	35.8	68.6	520.7	7 130.6	3 026.3	10 183.2	220.7	96	89	2844	
1 441	620	54.1	1 157.7	27.6	53.6	481.1	3 952.5	5 167.6	9 162.1	219.2	97	96	285	
1 441	620	54.1	1 157.7	27.6	53.6	481.1	3 952.5	5 167.6	9 162.1	219.2	97	96	2851	
969	550	143.6	4 004.7	84.4	170.8	2 169.1	12 340.5	25 406.0	38 156.8	3 075.3	(NA)	(NA)	286	
92	40	4.5	82.5	3.5	7.5	56.7	215.5	409.2	624.2	40.2	84	77	2861	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	2865	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	2869	
1 127	417	50.9	1 155.8	31.7	64.4	644.1	5 096.9	9 345.9	14 652.5	698.7	(NA)	(NA)	287	
143	75	10.4	268.1	6.3	13.5	156.3	981.0	2 395.3	3 391.1	145.3	88	79	2873	
110	74	14.3	328.2	9.7	20.0	206.8	760.5	3 055.8	3 921.9	229.6	94	67	2874	
544	149	9.8	155.7	6.0	12.2	76.5	406.5	1 445.5	1 903.4	35.4	97	64	2875	
330	119	16.5	403.8	9.7	18.7	204.4	2 948.9	2 449.2	5 436.1	288.5	81	87	2879	
2 733	866	82.3	1 725.1	49.1	96.7	888.5	5 432.6	6 847.4	12 330.4	519.0	(NA)	(NA)	289	
684	234	18.2	366.0	10.9	20.7	173.2	1 151.4	1 699.9	2 857.9	70.1	90	84	2891	
114	45	12.3	253.3	7.9	15.1	144.1	580.7	340.8	922.7	32.9	91	96	2892	
467	153	9.9	214.1	5.5	11.0	101.9	557.5	1 016.2	1 572.6	25.5	98	97	2893	
25	24	2.1	54.9	1.6	3.0	39.1	190.8	433.7	632.9	39.4	100	95	2895	
1 443	410	39.7	836.8	23.1	46.8	430.2	2 952.2	3 356.8	6 344.3	351.3	85	84	2899	
2 322	848	151.6	4 338.7	99.6	205.2	2 612.7	22 068.5	185 191.1	208 918.6	6 578.9	(NA)	(NA)	29	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	291	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	2911	
1 307	357	29.5	629.1	21.6	43.2	424.2	1 742.8	4 156.1	5 948.1	133.2	(NA)	(NA)	295	
1 034	202	15.2	340.5	11.1	22.2	229.1	925.9	2 162.4	3 098.6	76.1	93	96	2951	
273	155	14.2	288.7	10.4	21.0	195.1	816.9	1 993.7	2 849.5	57.1	95	98	2952	
582	180	13.8	311.7	7.0	14.1	131.1	1 078.9	2 510.6	3 614.1	123.4	(NA)	(NA)	299	
473	153	11.9	266.2	5.6	11.3	102.3	902.6	1 949.5	2 875.3	67.8	94	46	2992	
109	27	2.0	45.5	1.4	2.8	28.7	176.4	561.1	738.8	55.6	94	89	2999	

Table 2. Statistics for Industry Groups and Industries: 1987 and 1982—Con.

[Data in this table may differ from the preliminary industry reports previously issued. These differences are due to corrections which were made for errors identified after the industry reports were

1987 SIC code	Industry group and industry	1987												Ratios	
		All establishments¹		All employees		Production workers			Value added by manufac- ture (million dollars)	Cost of materials² (million dollars)	Value of shipments² (million dollars)	New capital expendi- tures³ (million dollars)			
		Total (number)	With 20 employ- ees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)							
30	Rubber and miscellaneous plastics products -----	14 515	7 268	827.9	17 503.4	640.9	1 278.3	11 644.7	44 293.1	42 291.1	86 273.3	3 410.8	(NA)	(NA)	
301	Tires and inner tubes -----	164	98	65.5	2 071.2	52.7	103.8	1 597.1	5 561.3	4 866.3	10 430.7	336.9	(NA)	(NA)	
3011	Tires and inner tubes -----	164	98	65.5	2 071.2	52.7	103.8	1 597.1	5 561.3	4 866.3	10 430.7	336.9	(NA)	(NA)	
302	Rubber and plastics footwear -----	66	39	11.0	154.4	9.2	16.8	104.5	324.7	270.9	584.8	9.7	(NA)	(NA)	
3021	Rubber and plastics footwear -----	66	39	11.0	154.4	9.2	16.8	104.5	324.7	270.9	584.8	9.7	(NA)	(NA)	
305	Hose and belting and gaskets and packing -----	693	389	53.5	1 193.2	37.7	77.6	739.1	2 756.1	2 044.6	4 782.0	178.0	(NA)	(NA)	
3052	Rubber and plastics hose and belting -----	189	123	23.2	533.7	16.6	33.4	343.2	1 248.3	1 029.3	2 274.8	89.2	(NA)	(NA)	
3053	Gaskets, packing, and sealing devices -----	504	266	30.3	659.5	21.1	44.2	395.9	1 507.9	1 015.3	2 507.2	88.8	(NA)	(NA)	
306	Fabricated rubber products, n.e.c. -----	1 573	767	101.0	2 184.8	76.3	155.7	1 412.1	4 680.2	4 321.5	8 984.9	282.0	(NA)	(NA)	
3061	Mechanical rubber goods --	587	297	44.8	984.6	34.5	69.7	662.0	1 968.2	1 599.3	3 567.7	133.9	(NA)	(NA)	
3069	Fabricated rubber products, n.e.c. -----	986	470	56.2	1 200.2	41.9	86.0	750.1	2 712.0	2 722.3	5 417.2	148.1	(NA)	(NA)	
308	Miscellaneous plastics products, n.e.c. -----	12 019	5 975	596.9	11 899.8	464.9	924.5	7 791.8	30 970.8	30 787.8	61 491.0	2 604.4	(NA)	(NA)	
3081	Unsupported plastics film and sheet -----	592	383	47.7	1 237.1	34.7	73.2	777.9	3 994.0	4 075.8	8 039.3	416.5	(NA)	(NA)	
3082	Unsupported plastics profile shapes -----	581	298	25.2	511.0	19.2	37.9	315.0	1 189.0	1 115.3	2 277.3	134.0	(NA)	(NA)	
3083	Laminated plastics plate, sheet, and profile shapes --	232	103	17.2	411.9	12.9	27.6	274.7	1 120.6	1 017.1	2 133.3	53.9	(NA)	(NA)	
3084	Plastics pipe -----	251	177	12.5	263.1	9.5	19.1	174.5	960.7	1 476.7	2 455.8	56.4	(NA)	(NA)	
3085	Plastics bottles -----	284	225	24.8	492.9	21.2	43.5	378.3	1 327.6	1 439.6	2 770.3	167.4	(NA)	(NA)	
3086	Plastics foam products ----	939	581	60.8	1 176.4	47.5	91.4	779.9	3 028.8	3 854.8	6 876.4	332.7	(NA)	(NA)	
3087	Custom compounding of purchased plastics resins --	404	200	17.2	397.6	11.9	24.8	222.1	1 005.7	1 509.6	2 497.1	94.5	(NA)	(NA)	
3088	Plastics plumbing fixtures --	173	79	7.2	130.0	5.4	10.2	78.3	388.2	273.4	656.8	12.2	(NA)	(NA)	
3089	Plastics products, n.e.c. ---	8 563	3 929	384.4	7 279.8	302.7	597.0	4 791.1	17 936.1	16 025.7	33 784.6	1 337.0	(NA)	(NA)	
31	Leather and leather products -----	2 193	910	127.0	1 798.3	107.4	203.1	1 281.7	4 274.9	4 681.5	8 908.5	98.7	(NA)	(NA)	
311	Leather tanning and finishing--	344	139	14.6	291.3	12.1	24.5	211.6	745.2	1 501.0	2 221.0	27.7	97	95	
3111	Leather tanning and finishing -----	344	139	14.6	291.3	12.1	24.5	211.6	745.2	1 501.0	2 221.0	27.7	97	95	
313	Footwear cut stock -----	128	58	5.1	70.2	4.3	8.6	50.1	142.4	189.2	331.7	3.4	97	94	
3131	Footwear cut stock -----	128	58	5.1	70.2	4.3	8.6	50.1	142.4	189.2	331.7	3.4	97	94	
314	Footwear, except rubber ----	479	314	70.6	905.1	61.7	116.1	685.3	2 106.1	1 891.3	3 987.4	36.3	(NA)	(NA)	
3142	House slippers -----	36	22	3.7	49.7	2.9	5.5	29.9	110.9	93.2	203.8	2.7	91	96	
3143	Men's footwear, except athletic -----	153	110	31.5	432.2	27.4	51.0	325.1	1 035.4	1 034.3	2 071.8	17.0	90	96	
3144	Women's footwear, except athletic -----	163	123	26.6	320.0	23.7	45.5	253.2	755.8	572.4	1 316.0	10.1	93	88	
3149	Footwear, except rubber, n.e.c. -----	127	59	8.9	103.3	7.7	14.1	77.1	204.0	191.6	395.8	6.5	94	81	
315	Leather gloves and mittens --	77	45	3.1	33.6	2.7	4.9	26.1	74.5	112.3	184.8	.7	83	94	
3151	Leather gloves and mittens -----	77	45	3.1	33.6	2.7	4.9	26.1	74.5	112.3	184.8	.7	83	94	
316	Luggage -----	241	109	10.5	179.6	7.6	13.8	95.5	467.0	399.4	860.6	11.5	96	93	
3161	Luggage -----	241	109	10.5	179.6	7.6	13.8	95.5	467.0	399.4	860.6	11.5	96	93	
317	Handbags and personal leather goods -----	529	149	16.3	225.3	13.3	24.9	151.0	518.6	401.1	919.7	13.6	(NA)	(NA)	
3171	Women's handbags and purses -----	321	88	9.5	130.7	7.9	14.9	91.8	317.0	236.0	548.5	10.1	91	99	
3172	Personal leather goods, n.e.c. -----	208	61	6.8	94.7	5.3	10.0	59.2	201.6	165.1	371.2	3.5	95	83	
319	Leather goods, n.e.c. -----	395	96	7.0	93.2	5.7	10.2	62.2	221.3	187.1	403.3	5.6	89	90	
3199	Leather goods, n.e.c. -----	395	96	7.0	93.2	5.7	10.2	62.2	221.3	187.1	403.3	5.6	89	90	
32	Stone, clay, and glass products -----	16 166	5 119	521.1	12 274.9	402.7	826.1	8 742.5	33 076.4	27 901.2	60 918.0	2 396.7	(NA)	(NA)	
321	Flat glass -----	81	35	14.5	504.6	11.7	24.8	396.1	1 617.7	899.9	2 533.2	150.7	(NA)	(NA)	
3211	Flat glass -----	81	35	14.5	504.6	11.7	24.8	396.1	1 617.7	899.9	2 533.2	150.7	(NA)	(NA)	
322	Glass and glassware, pressed or blown -----	522	211	76.5	1 938.6	65.0	126.2	1 558.8	4 943.7	3 171.9	8 114.5	422.3	(NA)	(NA)	
3221	Glass containers -----	105	92	39.8	1 036.9	34.7	67.1	868.3	2 616.3	1 941.0	4 520.3	225.4	(NA)	(NA)	
3229	Pressed and blown glass, n.e.c. -----	417	119	36.8	901.8	30.2	59.1	690.5	2 327.4	1 230.9	3 594.2	196.9	(NA)	(NA)	
323	Products of purchased glass --	1 432	434	51.5	1 067.0	39.8	80.3	725.8	2 846.6	2 606.5	5 458.6	205.1	(NA)	(NA)	
3231	Products of purchased glass -----	1 432	434	51.5	1 067.0	39.8	80.3	725.8	2 846.6	2 606.5	5 458.6	205.1	(NA)	(NA)	
324	Cement, hydraulic -----	215	140	19.2	601.7	14.5	30.2	425.3	2 284.0	2 001.7	4 321.3	167.2	(NA)	(NA)	
3241	Cement, hydraulic -----	215	140	19.2	601.7	14.5	30.2	425.3	2 284.0	2 001.7	4 321.3	167.2	(NA)	(NA)	

See footnotes at end of table.

issued. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix]

1982														1987 SIC code
All establishments ¹		All employees		Production workers			Value added by manufac- ture (million dollars)	Cost of materials ² (million dollars)	Value of shipments ² (million dollars)	New capital expendi- tures ³ (million dollars)	Ratios			
Total (number)	With 20 employ- ees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)					Spe- cial- iza- tion (per- cent)	Cov- erage (per- cent)		
13 449	5 978	681.7	11 596.8	522.6	996.0	7 691.1	27 218.9	27 950.0	55 415.8	2 199.2	(NA)	(NA)	30	
164	99	70.3	1 733.9	54.6	101.1	1 285.6	4 660.4	4 594.6	9 340.1	227.0	99	98	301	
164	99	70.3	1 733.9	54.6	101.1	1 285.6	4 660.4	4 594.6	9 340.1	227.0	99	98	3011	
65	40	17.6	196.5	15.0	27.8	149.1	360.1	333.8	706.2	12.4	96	94	302	
65	40	17.6	196.5	15.0	27.8	149.1	360.1	333.8	706.2	12.4	96	94	3021	
635	358	55.2	998.5	39.5	73.4	638.3	2 025.4	1 549.0	3 611.5	167.0	(NA)	(NA)	305	
162	117	24.9	503.1	17.7	31.9	330.4	1 027.8	887.4	1 945.5	114.0	86	94	3052	
473	241	30.3	495.4	21.8	41.5	307.9	997.6	661.6	1 666.0	53.0	93	89	3053	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	306	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	3061	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	3069	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	308	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	3081	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	3082	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	3083	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	3084	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	3085	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	3086	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	3087	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	3088	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	3089	
2 735	1 313	199.8	2 218.5	171.3	304.1	1 623.1	4 772.9	4 917.1	9 719.2	132.0	(NA)	(NA)	31	
384	172	19.5	310.6	16.2	31.1	225.2	579.8	1 165.1	1 753.0	33.2	99	99	311	
384	172	19.5	310.6	16.2	31.1	225.2	579.8	1 165.1	1 753.0	33.2	99	99	3111	
161	80	6.8	80.8	5.7	10.4	54.4	154.7	212.8	367.8	6.0	94	94	313	
161	80	6.8	80.8	5.7	10.4	54.4	154.7	212.8	367.8	6.0	94	94	3131	
751	536	121.4	1 250.0	107.4	186.7	973.6	2 808.9	2 444.9	5 269.3	65.6	(NA)	(NA)	314	
62	44	7.5	71.3	6.4	11.2	51.7	149.7	128.8	275.8	3.1	96	98	3142	
203	159	46.5	503.1	40.7	69.6	382.2	1 101.4	1 141.3	2 261.4	28.3	89	95	3143	
293	226	48.4	483.1	43.4	77.1	392.9	1 107.0	821.9	1 933.2	20.2	94	90	3144	
193	107	19.1	192.7	16.8	28.7	146.8	450.9	352.8	798.9	14.0	82	81	3149	
96	54	3.9	36.6	3.3	5.6	26.9	72.5	104.4	177.6	.7	86	81	315	
96	54	3.9	36.6	3.3	5.6	26.9	72.5	104.4	177.6	.7	86	81	3151	
292	131	16.0	193.8	12.5	21.0	112.5	432.8	355.5	789.0	12.0	93	95	316	
292	131	16.0	193.8	12.5	21.0	112.5	432.8	355.5	789.0	12.0	93	95	3161	
636	235	25.3	271.1	20.5	39.0	178.0	564.0	469.2	1 035.1	8.7	(NA)	(NA)	317	
393	148	15.4	158.5	13.2	25.6	111.7	320.4	302.2	623.7	5.6	96	94	3171	
243	87	9.9	112.6	7.3	13.4	66.3	243.6	167.0	411.4	3.2	94	83	3172	
415	105	7.0	75.6	5.8	10.4	52.5	160.2	165.3	327.4	5.8	96	94	319	
415	105	7.0	75.6	5.8	10.4	52.5	160.2	165.3	327.4	5.8	96	94	3199	
16 545	4 753	531.5	10 096.7	408.4	796.3	7 163.6	22 985.7	22 149.3	45 180.6	2 309.0	(NA)	(NA)	32	
69	33	15.3	413.8	12.0	24.6	322.0	846.5	827.0	1 665.5	97.6	95	(D)	321	
69	33	15.3	413.8	12.0	24.6	322.0	846.5	827.0	1 665.5	97.6	95	(D)	3211	
459	229	96.6	2 032.4	81.2	157.8	1 626.7	4 482.2	3 505.8	7 940.8	530.7	(NA)	(NA)	322	
128	113	59.0	1 306.4	51.7	101.0	1 092.3	2 739.1	2 521.8	5 216.8	297.4	99	99+	3221	
331	116	37.6	726.0	29.5	56.8	534.4	1 743.1	984.0	2 724.0	233.3	97	77	3229	
1 337	387	41.3	696.3	31.5	60.8	466.7	1 483.7	1 480.2	2 976.5	119.1	95	(D)	323	
1 337	387	41.3	696.3	31.5	60.8	466.7	1 483.7	1 480.2	2 976.5	119.1	95	(D)	3231	
237	160	24.6	636.4	19.1	36.5	473.6	1 815.7	1 752.6	3 542.0	421.9	98	99	324	
237	160	24.6	636.4	19.1	36.5	473.6	1 815.7	1 752.6	3 542.0	421.9	98	99	3241	

Table 2. Statistics for Industry Groups and Industries: 1987 and 1982—Con.

[Data in this table may differ from the preliminary industry reports previously issued. These differences are due to corrections which were made for errors identified after the industry reports were

1987 SIC code	Industry group and industry	1987												Ratios	
		All establishments ¹		All employees		Production workers			Value added by manufac- ture (million dollars)	Cost of materials ² (million dollars)	Value of shipments ² (million dollars)	New capital expendi- tures ³ (million dollars)			
		Total (number)	With 20 employ- ees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)							
32	Stone, clay, and glass products—Con.														
325	Structural clay products	598	365	34.6	687.8	27.4	56.3	489.4	1 732.8	1 178.6	2 903.3	104.9	(NA)	(NA)	
3251	Brick and structural clay tile	265	203	16.5	310.3	13.4	27.7	223.4	767.3	480.3	1 249.2	56.1	(NA)	(NA)	
3253	Ceramic wall and floor tile	114	51	9.5	182.8	7.7	15.6	134.6	462.8	261.9	717.4	33.2	(NA)	(NA)	
3255	Clay refractories	152	82	6.4	149.8	4.7	9.3	99.1	402.8	382.9	781.4	11.7	(NA)	(NA)	
3259	Structural clay products, n.e.c.	67	29	2.1	44.9	1.7	3.6	32.2	99.9	53.5	155.2	3.9	(NA)	(NA)	
326	Pottery and related products	1 006	246	36.7	731.6	29.5	58.2	531.6	1 637.5	712.1	2 326.8	79.3	(NA)	(NA)	
3261	Vitreous plumbing fixtures	65	40	9.7	217.0	8.2	17.2	176.5	536.9	262.5	790.6	30.9	(NA)	(NA)	
3262	Vitreous china table and kitchenware	34	14	5.4	104.6	4.4	8.3	78.9	247.6	53.4	298.4	7.0	(NA)	(NA)	
3263	Semivitreous table and kitchenware	44	18	1.8	25.6	1.5	3.3	19.1	74.2	18.9	93.0	1.2	(NA)	(NA)	
3264	Porcelain electrical supplies	110	60	9.4	219.4	7.3	14.3	149.8	429.6	209.7	631.7	23.3	(NA)	(NA)	
3269	Pottery products, n.e.c.	753	114	10.5	165.0	8.1	15.2	107.2	349.2	167.6	513.2	16.9	(NA)	(NA)	
327	Concrete, gypsum, and plaster products	9 814	2 939	203.0	4 619.8	151.6	322.1	3 185.0	11 761.7	12 653.3	24 353.7	863.2	(NA)	(NA)	
3271	Concrete block and brick	1 129	339	18.6	411.8	10.8	23.6	216.1	1 071.6	1 185.6	2 245.8	72.1	(NA)	(NA)	
3272	Concrete products, n.e.c.	3 153	921	70.3	1 465.5	53.4	112.8	991.5	3 308.4	2 536.3	5 819.1	193.6	(NA)	(NA)	
3273	Ready-mixed concrete	5 299	1 527	96.4	2 278.9	73.4	154.0	1 632.7	5 702.8	7 222.2	12 907.9	477.0	(NA)	(NA)	
3274	Lime	82	56	5.7	141.9	4.5	9.4	103.6	350.2	364.5	715.5	33.0	(NA)	(NA)	
3275	Gypsum products	151	96	12.0	321.8	9.5	22.3	241.0	1 328.6	1 344.7	2 665.4	87.5	(NA)	(NA)	
328	Cut stone and stone products	745	166	12.5	242.6	10.0	19.7	173.4	449.3	384.8	838.7	30.6	(NA)	(NA)	
3281	Cut stone and stone products	745	166	12.5	242.6	10.0	19.7	173.4	449.3	384.8	838.7	30.6	(NA)	(NA)	
329	Miscellaneous nonmetallic mineral products	1 753	583	72.6	1 881.3	53.3	108.2	1 257.3	5 803.0	4 292.4	10 067.8	373.3	(NA)	(NA)	
3291	Abrasive products	406	178	23.4	624.5	15.5	31.2	350.1	2 001.6	1 656.4	3 621.9	113.5	(NA)	(NA)	
3292	Asbestos products	54	22	4.0	98.7	3.1	6.3	70.3	202.6	185.2	386.5	14.9	(NA)	(NA)	
3295	Minerals, ground or treated	385	107	8.5	205.7	6.2	12.5	140.3	753.7	524.3	1 284.9	40.0	(NA)	(NA)	
3296	Mineral wool	231	109	21.5	619.4	17.4	36.6	483.6	1 984.4	1 268.8	3 259.2	177.6	(NA)	(NA)	
3297	Nonclay refractories	135	79	7.7	201.6	5.6	11.2	130.3	510.9	443.5	954.5	16.3	(NA)	(NA)	
3299	Nonmetallic mineral products, n.e.c.	542	88	7.5	131.4	5.6	10.5	82.7	349.9	214.1	560.8	11.1	(NA)	(NA)	
33	Primary metal industries	6 771	3 688	700.7	19 781.5	541.0	1 113.8	14 162.7	46 471.2	74 238.1	120 169.9	3 841.6	(NA)	(NA)	
331	Blast furnace and basic steel products	1 241	719	255.5	8 259.0	197.5	411.6	6 124.2	21 081.2	31 327.4	52 327.1	1 671.3	(NA)	(NA)	
3312	Blast furnaces and steel mills	455	232	194.9	6 643.8	152.1	316.9	5 018.6	16 962.7	24 301.3	41 141.1	1 477.4	(NA)	(NA)	
3313	Electrometallurgical products	30	24	3.9	112.6	2.8	5.9	74.7	291.8	514.9	843.8	24.7	(NA)	(NA)	
3315	Steel wire and related products	344	206	24.4	592.2	18.3	39.4	405.0	1 435.2	1 888.4	3 327.6	64.1	(NA)	(NA)	
3316	Cold finishing of steel shapes	184	94	11.8	359.2	8.1	17.0	233.3	853.8	2 028.4	2 881.8	45.0	(NA)	(NA)	
3317	Steel pipe and tubes	228	163	20.5	551.2	16.0	32.5	392.7	1 537.7	2 594.4	4 132.9	60.0	(NA)	(NA)	
332	Iron and steel foundries	1 231	783	128.6	3 382.7	103.4	210.7	2 518.0	6 186.9	4 439.6	10 550.6	434.5	(NA)	(NA)	
3321	Gray and ductile iron foundries	773	492	81.3	2 247.6	66.9	138.4	1 743.1	4 002.4	3 162.3	7 134.2	356.5	(NA)	(NA)	
3322	Malleable iron foundries	28	19	4.2	121.4	3.0	5.9	77.4	183.1	101.0	283.4	3.7	(NA)	(NA)	
3324	Steel investment foundries	135	95	20.3	470.6	15.6	31.1	320.6	990.2	498.1	1 454.5	36.5	(NA)	(NA)	
3325	Steel foundries, n.e.c.	295	177	22.9	543.2	17.8	35.4	376.9	1 011.1	678.2	1 678.5	37.9	(NA)	(NA)	
333	Primary nonferrous metals	169	89	31.3	987.4	23.8	47.7	691.8	2 975.2	7 796.9	10 793.8	358.5	(NA)	(NA)	
3331	Primary copper	13	12	3.3	97.8	2.6	5.2	73.0	443.4	2 177.1	2 556.9	33.6	(NA)	(NA)	
3334	Primary aluminum	51	29	17.4	570.0	13.9	27.7	421.5	1 903.8	3 057.2	5 017.1	173.5	(NA)	(NA)	
3339	Primary nonferrous metals, n.e.c.	105	48	10.6	319.6	7.3	14.8	197.3	628.0	2 562.6	3 219.8	151.4	(NA)	(NA)	
334	Secondary nonferrous metals	397	161	12.5	310.9	9.1	19.3	185.8	947.2	3 444.4	4 425.1	62.6	(NA)	(NA)	
3341	Secondary nonferrous metals	397	161	12.5	310.9	9.1	19.3	185.8	947.2	3 444.4	4 425.1	62.6	(NA)	(NA)	
335	Nonferrous rolling and drawing	1 066	755	161.5	4 267.5	120.8	250.9	2 898.4	10 140.2	23 116.5	32 870.6	978.1	(NA)	(NA)	
3351	Copper rolling and drawing	121	91	22.4	582.6	17.4	36.5	413.3	1 555.9	3 531.3	4 993.3	88.3	(NA)	(NA)	
3353	Aluminum sheet, plate, and foil	56	44	26.1	912.3	19.8	40.2	659.0	1 790.0	7 841.4	9 497.2	439.2	(NA)	(NA)	
3354	Aluminum extruded products	203	160	29.9	718.9	22.9	48.9	491.1	1 346.0	2 868.5	4 194.4	113.8	(NA)	(NA)	
3355	Aluminum rolling and drawing, n.e.c.	30	15	1.1	31.0	.8	1.7	21.7	126.1	457.9	562.9	4.1	(NA)	(NA)	
3356	Nonferrous rolling and drawing, n.e.c.	172	93	17.9	527.7	11.8	25.2	308.5	1 166.5	1 832.4	2 983.7	96.2	(NA)	(NA)	
3357	Nonferrous wiredrawing and insulating	484	352	64.2	1 494.9	48.0	98.4	1 004.9	4 155.6	6 585.0	10 639.1	236.4	(NA)	(NA)	
336	Nonferrous foundries (castings)	1 687	788	79.2	1 796.3	64.1	128.5	1 296.6	3 382.3	2 932.3	6 282.1	194.8	(NA)	(NA)	
3363	Aluminum die-castings	416	232	28.0	695.8	22.7	46.4	516.6	1 261.1	1 216.1	2 461.6	93.4	(NA)	(NA)	
3364	Nonferrous die-castings, except aluminum	303	157	12.9	260.0	10.4	20.7	176.2	543.1	471.2	1 006.5	26.5	(NA)	(NA)	
3365	Aluminum foundries	573	250	26.0	561.1	21.5	42.8	413.8	1 013.3	825.6	1 834.7	52.0	(NA)	(NA)	
3366	Copper foundries	336	123	8.3	177.3	6.6	12.9	125.9	349.9	290.7	638.5	14.0	(NA)	(NA)	

See footnotes at end of table.

issued. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix

1982														1987 SIC code
All establishments ¹		All employees		Production workers			Value added by manufac- ture (million dollars)	Cost of materials ² (million dollars)	Value of shipments ² (million dollars)	New capital expendi- tures ³ (million dollars)	Ratios			
Total (number)	With 20 employ- ees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)					Spe- cial- iza- tion (per- cent)	Cov- erage (per- cent)		
628	371	29.9	490.5	23.4	45.9	347.0	989.2	838.1	1 868.1	56.9	(NA)	(NA)	32	
294	185	12.5	185.4	9.9	19.7	130.1	338.6	295.7	657.3	25.7	98	99	3251	
97	52	7.5	114.2	6.1	12.3	80.2	256.1	149.7	406.9	7.7	100	97	3253	
159	103	7.6	155.2	5.6	10.4	109.3	316.5	339.0	670.3	21.2	92	94	3255	
78	31	2.3	35.7	1.8	3.6	27.4	77.9	53.8	133.6	2.3	98	96	3259	
910	238	37.4	598.0	30.7	56.5	442.2	1 173.5	597.1	1 761.9	79.6	(NA)	(NA)	326	
56	35	7.9	142.9	6.6	12.6	114.5	313.9	162.5	474.0	28.8	91	99	3261	
32	20	6.3	98.0	5.1	9.1	74.2	196.3	49.2	241.6	5.2	84	98	3262	
38	18	3.0	37.1	2.5	4.5	29.4	61.6	23.7	87.6	1.7	87	82	3263	
90	62	10.1	197.1	8.0	14.8	132.3	350.0	183.4	528.0	25.9	85	87	3264	
694	103	10.1	122.9	8.6	15.4	91.8	251.7	178.3	430.6	18.0	98	86	3269	
9 933	2 362	167.2	2 994.6	123.4	245.1	2 006.5	6 603.3	8 331.1	14 946.7	569.2	(NA)	(NA)	327	
1 155	251	15.5	261.9	9.1	17.8	133.7	577.8	718.4	1 301.8	37.6	95	87	3271	
3 173	729	55.7	961.7	42.5	84.8	649.2	2 006.4	1 627.7	3 649.2	127.7	97	95	3272	
5 379	1 239	81.4	1 475.3	60.4	118.5	1 005.3	3 282.1	4 877.6	8 163.3	282.4	95	98	3273	
87	59	5.6	108.6	4.4	8.5	79.4	245.0	298.2	543.2	36.0	89	92	3274	
139	84	9.1	186.9	7.1	15.5	138.9	492.1	809.2	1 289.2	85.5	93	98	3275	
711	132	10.5	155.9	8.5	16.5	118.5	295.2	259.0	555.4	23.9	97	98	328	
711	132	10.5	155.9	8.5	16.5	118.5	295.2	259.0	555.4	23.9	97	98	3281	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	329	
374	177	26.0	531.8	17.0	31.6	305.1	1 451.8	1 277.2	2 750.7	96.9	83	95	3291	
96	53	9.7	179.8	7.4	14.6	126.6	397.4	429.3	842.8	31.3	92	91	3292	
437	143	10.0	190.3	7.5	14.4	129.6	639.4	627.8	1 269.9	75.0	98	93	3295	
179	94	19.7	438.9	15.5	31.9	334.2	1 236.7	1 041.5	2 281.1	67.0	97	97	3296	
119	66	6.8	148.4	4.6	8.7	93.0	333.1	343.3	691.0	48.5	86	82	3297	
583	67	6.5	94.5	4.8	10.0	63.9	240.3	177.7	422.3	38.3	95	87	3299	
7 061	3 909	854.1	20 602.7	637.7	1 166.8	14 465.8	33 291.4	68 791.4	104 666.8	4 666.1	(NA)	(NA)	33	
1 068	708	365.7	10 262.0	266.7	471.2	7 271.6	14 721.5	30 299.4	46 720.2	2 425.1	(NA)	(NA)	331	
301	223	295.8	8 677.9	215.2	375.7	6 181.6	11 763.3	23 568.7	36 824.4	2 170.2	98	79	3312	
41	26	5.3	123.5	3.9	7.0	85.5	180.3	494.2	707.5	23.8	97	87	3313	
311	186	22.2	444.5	16.4	31.3	298.4	941.8	1 436.7	2 420.9	61.4	97	44	3315	
192	106	15.4	367.9	10.9	19.7	245.6	623.3	2 348.2	3 005.1	45.2	92	32	3316	
223	167	27.0	648.1	20.3	37.6	460.6	1 212.7	2 451.7	3 762.2	124.5	94	47	3317	
1 438	1 002	157.4	3 113.1	123.9	222.0	2 248.3	5 361.5	4 142.9	9 641.5	482.5	(NA)	(NA)	332	
925	635	97.3	1 965.0	78.2	139.8	1 463.0	3 310.5	2 840.4	6 202.2	338.0	94	91	3321	
50	31	6.5	135.7	4.8	8.2	89.3	206.3	112.9	323.2	11.9	89	77	3322	
132	108	16.8	299.4	12.6	24.4	197.2	635.7	363.3	1 024.6	32.9	91	96	3324	
331	228	36.9	713.0	28.4	49.6	498.8	1 209.0	826.3	2 091.4	99.6	90	92	3325	
161	94	43.9	1 306.6	31.9	62.2	928.3	2 310.9	9 057.4	11 320.8	412.5	(NA)	(NA)	333	
22	20	7.6	216.9	5.9	12.0	169.0	440.4	2 630.9	3 077.5	112.8	91	69	3331	
34	29	22.9	733.1	16.9	32.3	525.1	1 133.9	3 916.0	5 037.1	181.2	97	73	3334	
105	45	13.4	356.6	9.2	17.8	234.2	736.7	2 510.5	3 206.2	118.4	(NA)	(NA)	3339	
458	212	19.2	402.2	13.5	26.3	246.4	619.8	4 134.7	4 851.9	146.4	97	31	334	
458	212	19.2	402.2	13.5	26.3	246.4	619.8	4 134.7	4 851.9	146.4	97	31	3341	
1 022	735	166.7	3 636.2	121.8	233.4	2 450.4	6 821.7	18 035.8	25 462.9	933.2	(NA)	(NA)	335	
137	95	23.3	468.2	17.2	32.6	322.9	957.7	2 267.0	3 270.0	123.9	90	95	3351	
56	43	27.7	862.1	21.0	39.9	639.9	1 154.0	5 898.4	7 213.8	260.4	95	99	3353	
193	151	25.4	499.0	19.3	38.0	344.1	859.3	1 778.5	2 673.1	114.7	89	91	3354	
27	15	2.6	65.0	1.9	3.5	44.2	30.7	535.3	670.8	5.5	77	7	3355	
169	91	20.0	472.2	12.6	24.0	263.7	993.3	2 293.9	3 418.3	134.4	94	92	3356	
440	340	67.6	1 269.6	49.8	95.5	835.6	2 826.6	5 262.8	8 216.9	294.4	97	88	3357	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	336	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	3363	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	3364	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	3365	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	3366	

Table 2. Statistics for Industry Groups and Industries: 1987 and 1982—Con.

[Data in this table may differ from the preliminary industry reports previously issued. These differences are due to corrections which were made for errors identified after the industry reports were

1987 SIC code	Industry group and industry	1987												
		All establishments ¹		All employees		Production workers			Value added by manufac- ture (million dollars)	Cost of materials ² (million dollars)	Value of shipments ² (million dollars)	New capital expendi- tures ³ (million dollars)	Ratios	
		Total (number)	With 20 employ- ees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)					Spe- cial- iza- tion (per- cent)	Cov- erage (per- cent)
33	Primary metal industries— Con.													
336	Nonferrous foundries (castings)—Con.													
3369	Nonferrous foundries, n.e.c. -----	59	26	4.0	102.0	3.0	5.7	64.1	214.9	128.7	340.7	9.1	(NA)	(NA)
339	Miscellaneous primary metal products -----	980	393	32.0	777.7	22.4	45.0	447.9	1 758.3	1 181.0	2 920.6	141.7	(NA)	(NA)
3398	Metal heat treating -----	725	293	17.8	415.0	13.3	27.6	260.8	1 002.4	319.8	1 323.0	80.7	(NA)	(NA)
3399	Primary metal products, n.e.c. -----	255	100	14.2	362.8	9.2	17.4	187.1	755.9	861.1	1 597.6	61.1	(NA)	(NA)
34	Fabricated metal products ---	36 105	13 907	1 466.6	35 219.8	1 083.7	2 197.6	22 914.8	75 502.9	73 025.4	148 263.2	4 925.9	(NA)	(NA)
341	Metal cans and shipping containers -----	538	359	48.2	1 529.5	39.2	83.5	1 195.5	4 224.1	7 901.7	12 123.5	346.6	(NA)	(NA)
3411	Metal cans -----	368	258	39.3	1 322.0	32.6	69.3	1 055.4	3 818.3	7 182.0	10 997.1	332.5	(NA)	(NA)
3412	Metal barrels, drums, and pails -----	170	101	8.9	207.5	6.7	14.3	140.1	405.8	719.7	1 126.4	14.0	(NA)	(NA)
342	Cutlery, handtools, and hardware -----	2 327	957	145.7	3 397.9	111.0	218.4	2 282.7	8 054.8	5 471.4	13 510.2	450.8	(NA)	(NA)
3421	Cutlery -----	141	62	10.5	241.0	7.9	15.1	157.9	803.1	250.7	1 054.0	57.9	(NA)	(NA)
3423	Hand and edge tools, n.e.c. -----	809	316	42.0	929.0	31.4	62.9	600.1	2 259.0	1 388.9	3 641.2	119.5	(NA)	(NA)
3425	Saw blades and handsaws -----	138	60	7.7	178.5	5.7	11.2	115.2	415.3	269.8	679.2	22.7	(NA)	(NA)
3429	Hardware, n.e.c. -----	1 239	519	85.5	2 049.3	66.1	129.3	1 409.4	4 577.4	3 562.1	8 135.9	250.8	(NA)	(NA)
343	Plumbing and heating, except electric -----	828	317	44.0	974.9	31.4	64.9	587.3	2 779.7	2 420.7	5 159.5	124.5	(NA)	(NA)
3431	Metal sanitary ware -----	95	40	6.8	171.3	5.2	11.1	114.6	396.3	327.3	724.9	20.4	(NA)	(NA)
3432	Plumbing fixture fittings and trim -----	180	98	17.1	355.6	13.1	27.5	235.3	1 265.9	1 127.4	2 355.4	61.9	(NA)	(NA)
3433	Heating equipment, except electric -----	553	179	20.1	448.0	13.1	26.4	237.4	1 117.5	966.0	2 079.2	42.2	(NA)	(NA)
344	Fabricated structural metal products -----	12 579	4 765	409.6	9 092.9	292.6	586.7	5 558.0	18 797.6	22 002.5	40 716.8	800.5	(NA)	(NA)
3441	Fabricated structural metal -----	2 452	1 013	80.6	1 872.9	57.6	116.9	1 159.3	3 596.8	5 054.3	8 630.0	128.0	(NA)	(NA)
3442	Metal doors, sash, and trim -----	1 594	695	74.9	1 411.3	54.6	111.0	854.6	3 017.0	3 632.0	6 646.4	132.7	(NA)	(NA)
3443	Fabricated plate work (boiler shops) -----	1 736	804	74.5	1 835.9	51.4	101.6	1 104.5	3 457.2	3 266.6	6 754.0	175.1	(NA)	(NA)
3444	Sheet metal work -----	4 283	1 380	99.8	2 243.4	74.2	148.1	1 438.0	4 811.5	4 959.8	9 696.9	206.8	(NA)	(NA)
3446	Architectural metal work -----	1 344	333	28.1	576.7	19.8	39.2	343.0	1 193.3	1 083.2	2 273.7	44.6	(NA)	(NA)
3448	Prefabricated metal buildings -----	574	259	28.2	597.3	18.9	36.6	330.7	1 438.8	1 940.0	3 383.1	53.1	(NA)	(NA)
3449	Miscellaneous metal work -----	596	281	23.5	555.5	16.0	33.2	328.0	1 282.9	2 066.7	3 332.7	60.2	(NA)	(NA)
345	Screw machine products, bolts, etc. -----	2 569	1 103	94.6	2 268.0	72.7	153.3	1 551.6	4 762.4	3 158.6	7 879.6	250.2	(NA)	(NA)
3451	Screw machine products -----	1 635	635	42.7	945.8	34.1	72.9	666.0	1 772.0	1 046.6	2 805.3	100.0	(NA)	(NA)
3452	Bolts, nuts, rivets, and washers -----	934	468	51.9	1 322.2	38.6	80.4	885.6	2 990.5	2 112.0	5 074.3	150.3	(NA)	(NA)
346	Metal forgings and stampings -----	4 062	1 935	255.4	7 243.3	202.6	420.0	5 318.6	13 223.0	15 108.0	28 398.5	1 732.4	(NA)	(NA)
3462	Iron and steel forgings -----	404	200	27.4	772.0	19.7	39.7	497.6	1 435.9	1 580.3	3 083.5	117.6	(NA)	(NA)
3463	Nonferrous forgings -----	80	42	7.5	224.4	5.6	11.6	149.9	451.3	586.4	1 048.6	30.5	(NA)	(NA)
3465	Automotive stampings -----	712	501	119.6	3 968.1	99.8	213.4	3 159.1	6 672.7	8 488.3	15 171.4	1 282.8	(NA)	(NA)
3466	Crowns and closures -----	59	36	6.2	163.0	4.9	10.3	120.8	384.0	446.7	825.3	26.6	(NA)	(NA)
3469	Metal stampings, n.e.c. -----	2 807	1 156	94.7	2 115.8	72.6	145.0	1 391.1	4 279.0	4 006.2	8 269.6	274.9	(NA)	(NA)
347	Metal services, n.e.c. -----	5 251	1 650	114.9	2 211.3	89.9	180.4	1 472.2	4 730.3	3 263.8	7 981.7	250.4	(NA)	(NA)
3471	Plating and polishing -----	3 447	1 042	71.1	1 334.4	55.9	112.0	883.9	2 642.1	1 236.5	3 876.0	140.4	(NA)	(NA)
3479	Metal coating and allied services -----	1 804	608	43.8	876.8	34.0	68.5	588.3	2 088.2	2 027.2	4 105.7	110.0	(NA)	(NA)
348	Ordinance and accessories, n.e.c. -----	374	158	87.5	2 457.3	54.2	107.9	1 258.3	5 342.5	2 413.6	7 636.7	171.0	(NA)	(NA)
3482	Small arms ammunition -----	78	18	9.0	243.5	6.9	14.4	168.2	626.6	242.6	889.0	17.5	(NA)	(NA)
3483	Ammunition, except for small arms, n.e.c. -----	87	64	41.5	1 072.6	25.8	50.1	517.4	2 537.0	1 614.9	3 978.2	77.0	(NA)	(NA)
3484	Small arms -----	150	43	13.2	336.1	9.5	19.5	208.8	753.4	337.7	1 091.4	26.6	(NA)	(NA)
3489	Ordinance and accessories, n.e.c. -----	59	33	23.9	805.1	12.1	23.9	364.0	1 425.4	218.4	1 678.1	50.0	(NA)	(NA)
349	Miscellaneous fabricated metal products -----	7 577	2 663	266.7	6 044.8	190.0	382.4	3 690.6	13 588.5	11 285.1	24 856.6	799.4	(NA)	(NA)
3491	Industrial valves -----	387	275	46.8	1 223.0	30.2	59.9	660.4	2 851.4	1 815.2	4 665.3	151.8	(NA)	(NA)
3492	Fluid power valves and hose fittings -----	405	215	28.3	694.7	18.7	37.6	410.3	1 461.4	1 009.3	2 475.2	(S)	(NA)	(NA)
3493	Steel springs, except wire -----	151	61	5.0	122.1	3.6	7.3	78.1	248.7	210.4	458.5	18.0	(NA)	(NA)
3494	Valves and pipe fittings, n.e.c. -----	418	233	25.0	566.3	17.6	34.9	350.8	1 367.2	995.7	2 371.9	62.0	(NA)	(NA)
3495	Wire springs -----	407	214	19.7	406.5	16.0	32.2	289.9	880.0	697.5	1 580.4	49.2	(NA)	(NA)
3496	Miscellaneous fabricated wire products -----	1 160	450	35.8	690.1	26.7	54.3	429.0	1 510.3	1 287.3	2 795.6	65.6	(NA)	(NA)
3497	Metal foil and leaf -----	118	68	11.1	327.8	7.7	16.5	208.8	889.9	1 465.4	2 344.1	90.1	(NA)	(NA)
3498	Fabricated pipe and fittings -----	724	281	19.8	422.9	14.8	29.7	279.0	841.7	903.5	1 739.2	35.9	(NA)	(NA)
3499	Fabricated metal products, n.e.c. -----	3 807	866	75.2	1 591.5	54.7	109.8	984.4	3 537.9	2 900.8	6 426.5	157.4	(NA)	(NA)

See footnotes at end of table.

1982														1987 SIC code
All establishments ¹		All employees		Production workers			Value added by manufac- ture (million dollars)	Cost of materials ² (million dollars)	Value of shipments ² (million dollars)	New capital expendi- tures ³ (million dollars)	Ratios			
Total (number)	With 20 employ- ees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)					Spe- cial- iza- tion (per- cent)	Cov- erage (per- cent)		
													33	
													336	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	3369	
1 007	368	25.9	497.5	19.1	37.4	317.9	997.9	1 011.1	2 066.3	94.2	(NA)	(NA)	339	
758	288	17.7	324.2	13.5	26.9	216.6	684.5	416.0	1 128.2	42.5	95	97	3398	
249	80	8.2	173.4	5.6	10.6	101.4	313.5	595.2	938.1	51.7	87	82	3399	
35 560	13 642	1 459.7	28 282.6	1 073.3	2 070.4	18 455.8	58 927.6	59 393.8	119 444.0	3 685.9	(NA)	(NA)	34	
566	403	58.9	1 533.0	48.4	96.3	1 202.7	4 443.3	7 709.8	12 171.5	269.7	(NA)	(NA)	341	
397	294	49.0	1 334.5	40.8	81.5	1 066.4	4 071.7	7 046.8	11 132.8	247.0	98	99	3411	
169	109	9.9	198.6	7.6	14.8	136.3	371.7	663.0	1 038.7	22.7	93	93	3412	
2 238	939	140.9	2 584.5	106.3	200.1	1 723.3	6 040.7	3 950.5	10 081.7	335.6	(NA)	(NA)	342	
132	69	13.0	223.7	10.5	20.1	161.2	683.6	256.3	938.0	44.0	96	90	3421	
786	322	40.4	706.5	29.8	55.4	448.8	1 785.2	1 103.5	2 915.5	93.2	90	91	3423	
135	62	7.4	133.4	5.3	10.5	83.2	251.8	220.1	487.3	24.1	83	86	3425	
1 185	486	80.1	1 520.9	60.8	114.1	1 030.2	3 320.1	2 370.6	5 740.9	174.3	96	94	3429	
1 177	398	47.9	820.7	34.0	63.8	499.1	2 022.6	1 940.7	4 003.3	96.9	(NA)	(NA)	343	
86	35	7.5	139.4	5.7	10.8	97.0	308.1	303.4	620.3	15.7	80	97	3431	
186	103	14.4	237.9	11.1	21.2	156.9	672.1	613.8	1 300.5	37.2	97	93	3432	
905	260	26.0	443.4	17.1	31.8	245.2	1 042.4	1 023.5	2 082.5	44.0	90	87	3433	
12 681	4 669	421.9	7 897.2	300.4	586.7	4 955.8	15 466.3	18 944.1	34 904.3	751.6	(NA)	(NA)	344	
2 740	1 161	103.6	1 990.2	75.5	151.5	1 296.4	3 639.1	5 015.4	8 853.1	188.9	94	95	3441	
1 738	673	66.3	1 015.8	47.6	92.0	608.1	2 175.1	2 514.1	4 685.3	98.6	91	94	3442	
1 929	967	102.9	2 180.3	73.3	141.5	1 393.2	4 135.7	3 924.5	8 225.3	200.7	93	91	3443	
3 795	1 131	81.1	1 494.6	58.9	114.4	949.8	3 024.1	3 767.8	6 853.9	145.6	92	92	3444	
1 417	241	22.8	366.0	16.0	30.7	230.6	705.0	658.0	1 367.5	26.8	91	84	3446	
570	239	23.7	435.7	15.2	29.9	242.8	877.4	1 410.5	2 324.6	46.1	95	95	3448	
492	257	21.5	414.7	14.1	26.7	234.8	909.9	1 653.9	2 594.6	44.9	88	84	3449	
2 690	1 093	94.0	1 726.9	70.9	134.3	1 147.8	3 309.2	2 419.6	5 834.4	187.0	(NA)	(NA)	345	
1 787	643	41.8	718.9	33.7	65.2	503.2	1 328.0	831.6	2 173.1	77.2	96	94	3451	
903	450	52.2	1 008.1	37.2	69.1	644.6	1 981.2	1 588.1	3 661.3	109.8	93	95	3452	
4 019	1 892	236.3	5 110.2	183.7	353.5	3 644.8	9 709.8	10 139.7	20 057.1	945.0	(NA)	(NA)	346	
380	220	30.7	690.7	22.4	40.7	462.9	1 347.6	1 520.7	2 943.5	158.0	89	81	3462	
64	46	7.9	200.7	5.7	10.6	128.7	461.2	569.3	1 093.8	100.3	84	73	3463	
668	434	90.5	2 292.6	74.5	145.2	1 792.4	4 114.4	4 621.6	8 777.4	465.0	92	88	3465	
64	36	6.7	143.5	5.4	10.6	106.8	372.4	441.7	804.8	21.6	92	92	3466	
2 843	1 156	100.4	1 782.7	75.6	146.3	1 154.0	3 414.2	2 986.4	6 437.7	200.1	88	88	3469	
5 070	1 405	96.9	1 518.2	77.2	152.2	1 035.5	2 896.5	2 234.3	5 124.8	200.2	(NA)	(NA)	347	
3 450	898	61.9	919.0	49.7	98.1	631.9	1 693.9	1 038.4	2 731.4	109.2	97	97	3471	
1 620	507	35.0	599.1	27.5	54.1	403.7	1 202.6	1 195.9	2 393.4	91.0	96	93	3479	
349	155	79.4	1 779.7	50.5	95.3	941.1	3 441.5	1 568.4	4 992.9	138.4	(NA)	(NA)	348	
66	19	10.1	221.6	7.4	14.1	142.7	518.4	265.6	799.8	23.3	96	85	3482	
74	53	24.4	497.5	15.9	29.1	265.0	1 125.0	625.2	1 757.1	56.2	82	76	3483	
144	44	17.4	338.2	13.0	25.0	210.3	715.7	339.9	1 032.1	34.3	90	99	3484	
65	39	27.5	722.4	14.3	27.1	323.1	1 082.4	337.7	1 403.8	24.6	86	64	3489	
6 770	2 688	283.6	5 312.1	202.0	388.3	3 305.7	11 597.6	10 486.5	22 274.1	761.4	(NA)	(NA)	349	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	3491	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	3492	
137	55	5.2	103.5	3.8	6.8	67.3	204.5	204.8	413.5	7.3	81	59	3493	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	3494	
432	236	17.9	294.1	14.5	27.5	208.8	596.8	498.7	1 104.3	31.9	92	93	3495	
1 182	445	36.8	580.3	27.8	53.2	375.1	1 167.3	1 172.0	2 358.4	67.0	93	52	3496	
97	68	10.8	243.1	8.0	16.0	172.4	662.8	1 169.7	1 846.3	40.1	81	82	3497	
779	348	32.7	650.7	23.8	46.3	423.5	1 437.5	1 666.7	3 105.8	137.2	97	94	3498	
2 982	810	65.0	1 105.8	48.8	94.2	715.2	2 304.5	2 039.8	4 406.0	114.1	92	87	3499	

Table 2. Statistics for Industry Groups and Industries: 1987 and 1982—Con.

[Data in this table may differ from the preliminary industry reports previously issued. These differences are due to corrections which were made for errors identified after the industry reports were

1987 SIC code	Industry group and industry	1987												
		All establishments ¹		All employees		Production workers			Value added by manu- facture (million dollars)	Cost of materials ² (million dollars)	Value of shipments ² (million dollars)	New capital expendi- tures ³ (million dollars)	Ratios	
		Total (number)	With 20 employ- ees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)					Spe- cial- iza- tion (per- cent)	Cov- erage (per- cent)
35	Industrial machinery and equipment	52 135	13 892	1 853.1	50 749.9	1 145.9	2 322.7	26 077.7	119 214.4	100 598.5	220 097.5	6 968.0	(NA)	(NA)
351	Engines and turbines	356	190	86.4	2 886.8	56.5	115.9	1 707.8	7 018.4	7 510.2	14 426.8	609.5	(NA)	(NA)
3511	Turbines and turbine generator sets	80	42	22.9	862.4	11.8	26.7	365.7	1 973.1	1 579.5	3 446.8	91.6	(NA)	(NA)
3519	Internal combustion engines, n.e.c.	276	148	63.5	2 024.4	44.7	89.2	1 342.1	5 045.3	5 930.7	10 980.0	517.9	(NA)	(NA)
352	Farm and garden machinery	1 804	550	82.3	1 923.5	58.4	111.0	1 188.9	5 638.3	5 953.8	11 507.8	309.7	(NA)	(NA)
3523	Farm machinery and equipment	1 637	467	57.1	1 417.1	39.0	75.0	841.9	3 706.2	3 215.3	6 873.6	197.6	(NA)	(NA)
3524	Lawn and garden equipment	167	83	25.2	506.4	19.4	36.0	347.0	1 932.0	2 738.4	4 634.2	112.1	(NA)	(NA)
353	Construction and related machinery	3 467	1 405	187.7	5 260.1	116.4	232.6	2 875.7	11 330.6	12 832.8	24 573.4	597.6	(NA)	(NA)
3531	Construction machinery	952	419	80.8	2 421.4	54.0	106.9	1 491.3	5 762.7	6 895.3	12 764.0	336.5	(NA)	(NA)
3532	Mining machinery	321	122	13.6	354.6	8.2	16.3	180.7	772.5	748.5	1 518.1	39.4	(NA)	(NA)
3533	Oil and gas field machinery	636	188	24.5	709.0	13.1	26.0	339.8	1 200.1	1 199.0	2 691.2	31.5	(NA)	(NA)
3534	Elevators and moving stairways	176	81	10.2	262.4	6.3	12.8	143.5	524.7	565.3	1 084.4	21.7	(NA)	(NA)
3535	Conveyors and conveying equipment	745	345	31.4	854.9	17.8	37.6	379.0	1 742.9	1 633.1	3 392.7	123.5	(NA)	(NA)
3536	Holsts, cranes, and monorails	175	81	7.5	189.8	4.4	8.5	95.7	388.2	330.4	715.6	7.7	(NA)	(NA)
3537	Industrial trucks and tractors	462	169	19.6	468.0	12.7	24.5	245.8	939.6	1 461.2	2 407.6	37.3	(NA)	(NA)
354	Metalworking machinery	11 470	2 914	269.7	7 295.3	189.4	390.8	4 636.1	13 766.2	8 225.1	22 069.4	720.1	(NA)	(NA)
3541	Machine tools, metal cutting types	442	247	32.5	940.5	18.7	36.4	476.0	1 701.8	1 426.3	3 248.4	62.4	(NA)	(NA)
3542	Machine tools, metal forming types	217	126	14.0	420.2	8.9	18.5	240.2	721.7	646.4	1 415.2	31.6	(NA)	(NA)
3543	Industrial patterns	810	83	8.4	230.9	6.8	13.5	180.5	379.4	111.5	489.2	17.9	(NA)	(NA)
3544	Special dies, tools, jigs, and fixtures	7 324	1 524	116.3	3 182.1	88.2	186.6	2 266.6	5 347.9	2 220.5	7 597.7	376.8	(NA)	(NA)
3545	Machine tool accessories	1 868	558	47.9	1 149.8	34.6	70.4	725.6	2 541.7	1 026.8	3 562.8	109.2	(NA)	(NA)
3546	Power-driven handtools	200	68	16.8	379.8	11.6	22.2	220.6	1 122.0	1 045.8	2 158.6	48.1	(NA)	(NA)
3547	Rolling mill machinery	86	34	3.9	120.6	2.2	4.7	57.3	285.0	249.6	467.7	7.0	(NA)	(NA)
3548	Welding apparatus	223	128	18.5	536.0	11.4	23.9	288.4	1 078.8	1 053.6	2 091.0	45.8	(NA)	(NA)
3549	Metalworking machinery, n.e.c.	300	146	11.4	335.3	7.0	14.5	180.7	588.0	444.6	1 038.7	21.3	(NA)	(NA)
355	Special industry machinery	4 550	1 623	169.9	4 596.0	96.6	195.2	2 181.5	9 698.6	7 648.6	17 211.3	476.3	(NA)	(NA)
3552	Textile machinery	505	171	15.5	350.8	10.5	22.1	206.1	710.7	543.8	1 236.4	33.2	(NA)	(NA)
3553	Woodworking machinery	292	98	9.0	206.0	5.8	11.9	116.1	488.3	466.7	951.6	17.1	(NA)	(NA)
3554	Paper industries machinery	280	129	17.2	504.4	9.7	20.0	240.5	1 028.3	874.7	1 874.8	46.0	(NA)	(NA)
3555	Printing trades machinery	437	194	26.1	770.3	12.6	26.2	309.6	1 631.3	1 327.6	2 895.7	115.5	(NA)	(NA)
3556	Food products machinery	521	227	19.8	505.7	12.2	23.6	265.4	1 176.7	859.8	2 034.8	48.3	(NA)	(NA)
3559	Special industry machinery, n.e.c.	2 515	804	82.4	2 258.9	45.8	91.5	1 043.9	4 663.3	3 576.0	8 218.0	216.1	(NA)	(NA)
356	General industrial machinery	3 929	1 886	238.0	6 130.2	149.8	301.1	3 343.6	13 756.6	10 262.9	24 010.9	669.8	(NA)	(NA)
3561	Pumps and pumping equipment	405	226	35.4	974.4	19.8	38.9	485.2	2 221.9	1 865.9	4 089.7	96.6	(NA)	(NA)
3562	Ball and roller bearings	175	122	37.2	960.1	29.5	60.5	725.1	2 245.2	1 526.3	3 778.2	155.4	(NA)	(NA)
3563	Air and gas compressors	259	136	23.6	643.0	12.3	24.4	289.4	1 424.1	1 599.2	3 018.7	66.1	(NA)	(NA)
3564	Blowers and fans	504	240	24.8	544.9	16.0	32.5	297.7	1 280.0	985.5	2 257.3	46.6	(NA)	(NA)
3565	Packaging machinery	427	221	21.5	604.1	12.7	25.3	310.8	1 362.0	765.2	2 121.6	70.5	(NA)	(NA)
3566	Speed changers, drives, and gears	276	157	17.9	474.0	11.9	23.9	278.1	1 007.9	561.8	1 578.8	56.2	(NA)	(NA)
3567	Industrial furnaces and ovens	367	167	16.4	394.5	9.8	19.1	186.8	805.4	614.8	1 409.9	26.0	(NA)	(NA)
3568	Power transmission equipment, n.e.c.	305	180	21.7	556.3	14.8	30.0	333.9	1 245.0	774.7	2 029.8	51.9	(NA)	(NA)
3569	General industrial machinery, n.e.c.	1 211	437	39.4	978.7	23.1	46.5	456.5	2 165.2	1 569.5	3 726.8	100.4	(NA)	(NA)
357	Computer and office equipment	2 134	1 010	333.8	10 865.1	123.2	249.8	2 599.9	33 166.9	29 345.7	62 432.2	2 211.7	(NA)	(NA)
3571	Electronic computers	1 060	470	150.0	4 883.4	54.0	104.3	1 149.6	18 233.1	15 363.7	33 634.7	1 217.5	(NA)	(NA)
3572	Computer storage devices	105	64	42.4	1 423.2	14.4	30.0	324.4	3 258.0	3 188.6	6 322.9	336.9	(NA)	(NA)
3575	Computer terminals	110	60	14.1	418.7	5.2	10.0	117.0	983.1	710.5	1 733.8	54.0	(NA)	(NA)
3577	Computer peripheral equipment, n.e.c.	550	253	85.6	2 918.9	30.2	66.3	621.6	7 988.3	7 992.1	15 967.5	443.8	(NA)	(NA)
3578	Calculating and accounting equipment	101	57	12.8	379.1	5.8	12.5	119.5	844.7	612.3	1 456.8	38.9	(NA)	(NA)
3579	Office machines, n.e.c.	208	106	28.9	841.9	13.6	26.7	267.7	1 859.6	1 478.5	3 316.6	120.6	(NA)	(NA)
358	Refrigeration and service machinery	2 129	979	192.3	4 796.3	134.0	268.9	2 901.1	11 621.5	12 023.4	23 824.4	576.1	(NA)	(NA)
3581	Automatic vending machines	100	34	8.0	187.7	5.7	11.2	109.0	347.4	379.3	724.3	23.9	(NA)	(NA)
3582	Commercial laundry equipment	81	41	4.6	107.4	3.4	7.0	66.7	247.1	212.2	455.9	6.6	(NA)	(NA)
3585	Refrigeration and heating equipment	921	531	135.7	3 414.3	98.0	196.2	2 205.9	8 611.3	9 228.7	17 694.8	435.9	(NA)	(NA)
3586	Measuring and dispensing pumps	82	43	9.0	237.7	5.5	11.4	123.1	579.7	445.7	1 007.3	23.7	(NA)	(NA)
3589	Service industry machinery, n.e.c.	945	330	35.0	849.1	21.4	43.1	396.4	1 836.1	1 757.5	3 942.2	86.0	(NA)	(NA)

See footnotes at end of table.

issued. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix]

1982														1987 SIC code
All establishments ¹		All employees		Production workers			Value added by manufac- ture (million dollars)	Cost of materials ² (million dollars)	Value of shipments ² (million dollars)	New capital expendi- tures ³ (million dollars)	Ratios			
Total (number)	With 20 employ- ees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)					Spe- cial- iza- tion (per- cent)	Cov- erage (per- cent)		
52 912	14 264	2 188.7	46 910.7	1 358.0	2 596.8	25 093.1	102 269.8	83 787.8	187 895.7	8 537.2	(NA)	(NA)	35	
341	208	112.0	2 849.7	71.3	132.8	1 654.3	8 069.3	6 646.7	13 039.7	727.8	(NA)	(NA)	351	
88	49	32.4	870.8	18.9	37.4	431.6	2 152.9	1 515.0	3 676.3	127.9	94	80	3511	
253	159	79.6	1 979.0	52.4	95.4	1 222.6	3 916.4	5 131.7	9 363.4	599.9	89	87	3519	
2 078	704	113.8	2 385.6	75.4	138.2	1 404.5	6 146.3	6 593.5	13 108.2	392.3	(NA)	(NA)	352	
1 903	620	96.1	2 067.4	62.9	113.6	1 205.8	5 200.8	5 217.8	10 743.0	341.2	94	95	3523	
175	84	17.8	318.1	12.4	24.6	198.7	945.5	1 375.7	2 365.2	51.1	91	88	3524	
3 952	1 865	325.8	7 332.3	197.7	365.1	3 976.4	16 453.3	15 556.4	32 037.5	1 578.1	(NA)	(NA)	353	
939	444	115.5	2 653.1	72.8	122.6	1 522.5	5 477.8	6 151.6	11 657.9	419.4	91	94	3531	
369	175	24.6	522.1	14.3	25.9	275.4	1 113.0	991.7	2 109.3	66.0	90	89	3532	
1 015	498	98.5	2 341.9	60.0	120.1	1 292.4	6 545.8	4 786.0	11 195.1	903.2	92	96	3533	
165	83	13.0	270.7	7.7	15.1	137.0	589.4	557.6	1 120.7	31.2	96	95	3534	
699	363	36.6	759.1	20.4	39.8	346.7	1 472.7	1 455.7	2 946.7	58.0	89	91	3535	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	3536	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	3537	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	354	
942	293	58.3	1 335.0	33.9	63.6	709.2	2 516.2	1 598.3	4 411.5	157.7	91	93	3541	
452	162	19.5	438.1	12.1	23.2	245.3	777.8	574.6	1 428.7	43.4	89	87	3542	
996	105	9.8	217.6	8.1	14.8	173.4	347.6	97.6	452.3	15.8	97	76	3543	
7 255	1 322	102.9	2 293.3	81.7	164.9	1 684.9	3 780.5	1 535.4	5 374.9	232.9	94	79	3544	
1 620	562	55.1	1 069.7	38.8	73.5	690.4	2 164.3	980.3	3 165.3	143.9	92	89	3545	
203	74	21.6	393.6	14.5	25.9	228.6	940.3	791.5	1 795.3	68.1	88	91	3546	
63	32	5.1	125.1	3.3	6.1	70.8	276.4	246.8	502.9	14.8	79	79	3547	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	3548	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	3549	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	355	
551	197	19.4	322.9	12.8	23.9	184.5	641.6	424.1	1 059.0	46.1	96	95	3552	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	3553	
253	126	17.8	405.8	10.0	20.2	201.5	762.6	622.5	1 387.4	29.4	89	93	3554	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	3555	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	3556	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	3559	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	356	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	3561	
162	116	43.8	910.4	33.6	61.6	647.8	1 849.1	1 220.0	3 149.5	164.8	96	99	3562	
282	144	31.8	709.3	17.3	34.1	344.0	1 470.1	1 698.3	3 270.0	118.1	90	91	3563	
502	240	29.8	553.6	19.1	37.2	306.0	1 160.0	999.8	2 173.5	57.1	88	92	3564	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	3565	
309	180	24.1	503.9	15.8	29.7	298.4	1 020.9	552.7	1 631.6	93.2	87	87	3566	
353	172	16.1	312.6	9.2	17.8	149.2	624.9	465.2	1 102.2	21.1	90	94	3567	
293	194	26.9	553.0	18.0	33.1	335.2	1 144.1	763.1	1 926.8	74.7	90	84	3568	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	3569	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	357	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	3571	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	3572	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	3575	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	3577	
70	42	15.4	292.2	7.2	13.9	107.8	815.0	676.5	1 487.3	52.7	74	77	3578	
232	125	43.7	963.7	21.2	40.1	359.5	2 689.3	1 572.7	4 256.7	198.5	81	87	3579	
1 937	899	171.7	3 343.6	116.4	218.9	2 024.3	8 120.7	8 140.6	16 449.9	414.7	(NA)	(NA)	358	
92	36	7.4	123.3	5.1	9.8	72.3	215.0	267.1	479.4	13.1	93	98	3581	
87	45	4.7	83.0	3.2	8.4	49.8	170.0	147.8	321.0	4.9	96	87	3582	
865	496	120.5	2 393.2	85.0	159.3	1 532.6	6 049.4	6 190.6	12 390.3	329.3	92	96	3585	
61	35	8.1	160.0	5.2	9.9	86.9	365.1	299.7	676.2	12.8	86	93	3588	
832	287	31.0	584.0	17.8	33.5	283.0	1 321.3	1 235.4	2 583.0	54.6	93	88	3589	

Table 2. Statistics for Industry Groups and Industries: 1987 and 1982—Con.

[Data in this table may differ from the preliminary industry reports previously issued. These differences are due to corrections which were made for errors identified after the industry reports were

1987 SIC code	Industry group and industry	1987												
		All establishments ¹		All employees		Production workers			Value added by manufac- ture (million dollars)	Cost of materials ² (million dollars)	Value of shipments ² (million dollars)	New capital expendi- tures ³ (million dollars)	Ratios	
		Total (number)	With 20 employ- ees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)					Spe- cial- iza- tion (per- cent)	Cov- erage (per- cent)
35	Industrial machinery and equipment—Con.													
359	Industrial machinery, n.e.c.	22 296	3 335	292.9	6 996.7	221.5	457.5	4 643.1	13 217.5	6 796.1	20 041.4	797.4	(NA)	(NA)
3592	Carburetors, pistons, rings, and valves	155	86	21.7	648.2	17.3	36.7	485.3	1 198.0	1 088.7	2 287.4	104.9	(NA)	(NA)
3593	Fluid power cylinders and actuators	381	182	20.9	618.8	13.7	27.2	346.2	1 292.6	671.2	1 968.2	85.5	(NA)	(NA)
3594	Fluid power pumps and motors	175	80	17.3	509.4	10.8	22.5	293.3	942.4	650.8	1 604.6	64.3	(NA)	(NA)
3596	Scales and balances, except laboratory	132	55	6.6	145.3	3.8	8.2	65.7	351.8	272.1	627.0	12.1	(NA)	(NA)
3599	Industrial machinery, n.e.c.	21 453	2 932	226.4	5 074.9	175.9	362.9	3 452.6	9 432.6	4 113.3	13 554.1	530.7	(NA)	(NA)
36	Electronic and other electric equipment	15 962	7 564	1 569.7	38 736.7	1 003.8	1 967.6	19 757.8	95 958.1	76 431.7	172 136.7	6 971.8	(NA)	(NA)
361	Electric distribution equipment	766	412	76.6	1 777.7	53.7	103.9	1 064.8	4 577.0	3 622.1	8 267.7	186.5	(NA)	(NA)
3612	Transformers, except electronic	288	155	32.1	715.4	24.3	46.6	468.8	1 603.9	1 652.1	3 275.6	65.5	(NA)	(NA)
3613	Switchgear and switchboard apparatus	478	257	44.6	1 062.3	29.4	57.4	595.9	2 973.1	1 970.0	4 992.0	121.0	(NA)	(NA)
362	Electrical industrial apparatus	2 213	918	166.7	3 920.9	110.5	216.4	2 135.4	9 020.4	6 517.6	15 541.7	462.4	(NA)	(NA)
3621	Motors and generators	462	301	74.8	1 676.3	56.6	110.3	1 104.9	3 875.4	3 083.1	6 927.4	213.4	(NA)	(NA)
3624	Carbon and graphite products	100	67	10.4	273.3	7.3	15.5	171.6	624.8	621.3	1 254.4	47.8	(NA)	(NA)
3625	Relays and industrial controls	1 164	440	66.8	1 643.0	37.6	72.5	699.0	3 804.2	2 315.2	6 141.8	169.1	(NA)	(NA)
3629	Electrical industrial apparatus, n.e.c.	487	110	14.7	328.3	9.1	18.0	159.8	716.0	498.0	1 218.1	32.1	(NA)	(NA)
363	Household appliances	480	246	116.7	2 633.9	92.2	179.6	1 923.3	7 444.0	9 176.0	16 488.0	436.3	(NA)	(NA)
3631	Household cooking equipment	79	47	21.7	461.7	16.7	32.9	311.1	1 295.4	2 094.5	3 397.5	77.6	(NA)	(NA)
3632	Household refrigerators and freezers	49	26	25.7	650.7	21.6	41.5	518.2	1 450.4	2 161.6	3 518.9	100.3	(NA)	(NA)
3633	Household laundry equipment	18	16	16.7	465.8	14.1	27.7	373.4	1 406.2	1 649.0	3 034.8	73.4	(NA)	(NA)
3634	Electric housewares and fans	228	98	25.2	438.6	19.1	36.7	278.9	1 360.8	1 423.4	2 801.8	56.7	(NA)	(NA)
3635	Household vacuum cleaners	31	21	11.4	247.5	7.6	14.7	165.2	712.4	640.5	1 334.5	68.1	(NA)	(NA)
3639	Household appliances, n.e.c.	75	38	16.0	369.6	13.1	26.1	276.4	1 218.8	1 206.9	2 400.5	60.2	(NA)	(NA)
364	Electric lighting and wiring equipment	1 986	1 016	169.7	3 775.4	125.6	245.4	2 438.5	10 313.6	7 783.2	17 995.9	480.9	(NA)	(NA)
3641	Electric lamp bulbs and tubes	122	65	22.1	523.6	18.9	36.5	419.3	2 122.5	972.5	3 088.5	101.5	(NA)	(NA)
3643	Current-carrying wiring devices	462	275	50.5	1 002.1	36.5	69.8	580.9	2 399.4	1 607.0	4 005.2	112.8	(NA)	(NA)
3644	Noncurrent-carrying wiring devices	210	128	21.4	539.9	15.3	30.6	350.3	1 565.9	1 201.0	2 725.5	73.3	(NA)	(NA)
3645	Residential lighting fixtures	579	219	22.5	398.0	17.4	34.0	253.8	1 002.8	788.2	1 767.3	24.6	(NA)	(NA)
3646	Commercial lighting fixtures	276	152	23.0	482.6	15.8	31.8	282.3	1 379.6	1 385.5	2 762.7	61.7	(NA)	(NA)
3647	Vehicular lighting equipment	72	49	15.8	523.9	11.8	23.3	384.7	957.1	1 025.6	1 969.6	75.7	(NA)	(NA)
3648	Lighting equipment, n.e.c.	265	128	14.4	305.3	9.9	19.3	167.1	886.4	803.4	1 677.2	31.4	(NA)	(NA)
365	Household audio and video equipment	854	243	44.2	844.1	33.8	65.6	522.8	3 003.5	4 814.9	7 771.2	226.7	(NA)	(NA)
3651	Household audio and video equipment	378	149	30.9	578.4	23.6	45.2	362.3	1 641.3	4 247.5	5 849.6	147.7	(NA)	(NA)
3652	Prerecorded records and tapes	476	94	13.3	265.7	10.2	20.4	160.4	1 362.2	567.4	1 921.6	79.0	(NA)	(NA)
366	Communications equipment	1 437	860	256.3	7 398.4	126.6	242.5	2 797.2	19 804.4	14 060.2	33 820.3	1 227.2	(NA)	(NA)
3661	Telephone and telegraph apparatus	458	286	112.1	3 164.5	58.9	109.6	1 348.2	9 559.8	7 984.0	17 585.7	549.2	(NA)	(NA)
3663	Radio and television communications equipment	602	417	123.2	3 722.3	56.9	112.2	1 260.0	8 965.1	5 224.8	14 102.0	615.9	(NA)	(NA)
3669	Communications equipment, n.e.c.	377	157	21.0	511.6	10.7	20.7	189.1	1 279.5	851.4	2 132.6	62.1	(NA)	(NA)
367	Electronic components and accessories	5 911	2 922	550.9	13 686.7	332.3	659.3	6 158.5	30 635.2	19 794.5	50 312.9	3 114.1	(NA)	(NA)
3671	Electron tubes	116	63	29.1	815.0	21.1	42.1	519.5	1 432.5	1 347.7	2 767.9	105.1	(NA)	(NA)
3672	Printed circuit boards	894	463	58.8	1 231.9	43.3	89.2	758.1	2 416.7	1 818.9	4 203.9	224.7	(NA)	(NA)
3674	Semiconductors and related devices	855	442	183.3	5 457.2	87.3	175.4	1 851.8	13 085.1	6 432.9	19 578.4	1 929.9	(NA)	(NA)
3675	Electronic capacitors	144	101	23.6	411.1	17.3	33.3	268.4	896.2	574.6	1 471.0	79.2	(NA)	(NA)
3676	Electronic resistors	115	85	15.5	288.1	10.7	21.2	149.6	598.9	273.2	872.6	44.1	(NA)	(NA)
3677	Electronic coils and transformers	414	244	23.7	392.2	18.1	34.4	235.2	748.6	486.4	1 238.9	28.9	(NA)	(NA)
3678	Electronic connectors	284	200	42.5	968.8	29.9	60.9	578.6	2 450.4	1 476.5	3 910.5	140.7	(NA)	(NA)
3679	Electronic components, n.e.c.	3 089	1 324	174.4	4 122.5	104.7	202.7	1 797.3	9 006.8	7 384.2	16 269.7	561.6	(NA)	(NA)

See footnotes at end of table.

issued. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix]

1982														1987 SIC code
All establishments¹		All employees		Production workers			Value added by manufac- ture (million dollars)	Cost of materials² (million dollars)	Value of shipments² (million dollars)	New capital expendi- tures³ (million dollars)	Ratios			
Total (number)	With 20 employ- ees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)					Spe- cial- iza- tion (per- cent)	Cov- erage (per- cent)		
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	35	
171	94	31.2	691.9	24.0	46.0	492.4	1 385.1	795.6	2 224.5	106.0	81	94	359	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	3592	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	3593	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	3594	
128	63	7.0	128.3	4.2	8.0	62.2	284.0	222.7	516.4	15.9	98	86	3596	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	3599	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	36	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	361	
293	162	39.0	732.1	28.5	51.3	461.0	1 439.1	1 421.8	2 916.0	76.5	94	96	3612	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	3613	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	362	
472	325	84.2	1 546.4	61.0	114.4	984.2	3 435.8	2 526.4	6 060.1	275.4	94	81	3621	
90	59	12.0	258.2	8.4	16.6	164.8	550.1	463.3	971.4	151.8	94	93	3624	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	3625	
323	120	16.3	280.4	11.3	21.5	154.5	644.7	456.3	1 111.3	29.3	87	92	3629	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	363	
88	59	23.7	402.1	17.0	31.4	254.8	941.4	1 408.3	2 414.9	51.5	88	84	3631	
50	30	22.4	441.2	18.4	33.1	340.4	1 032.3	1 460.5	2 470.7	79.1	85	94	3632	
25	20	16.5	335.4	13.4	23.4	261.1	984.1	1 116.2	2 122.2	35.1	85	99	3633	
262	134	38.7	539.1	29.3	54.4	341.3	1 511.9	1 556.2	3 128.4	73.0	89	94	3634	
31	18	8.4	151.1	5.2	9.5	94.6	463.6	294.9	775.7	17.1	95	80	3635	
83	49	14.2	252.4	11.4	21.7	180.2	673.8	754.9	1 432.0	40.6	90	82	3639	
1 993	980	159.4	2 718.2	117.4	218.0	1 739.4	6 619.0	5 312.2	12 047.8	340.1	(NA)	(NA)	364	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	3641	
415	222	44.5	699.8	31.9	57.2	421.6	1 464.2	996.7	2 510.3	88.8	85	76	3643	
226	140	26.3	509.9	18.1	35.3	314.0	1 218.7	1 130.5	2 399.6	69.1	79	88	3644	
643	250	22.2	308.8	18.9	31.5	194.7	708.7	634.5	1 351.8	17.9	93	95	3645	
243	140	18.9	313.3	13.4	25.7	184.2	774.8	892.3	1 671.9	32.0	91	87	3646	
84	54	12.9	281.6	9.8	18.8	193.4	602.4	411.2	1 013.6	43.8	65	96	3647	
233	113	12.2	207.9	8.5	16.1	121.2	566.4	454.4	1 028.0	28.0	87	74	3648	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	365	
458	182	48.4	862.3	35.4	65.3	546.2	2 010.6	3 967.2	6 063.9	140.9	90	95	3651	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	3652	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	366	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	3661	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	3663	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	3669	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	367	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	3671	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	3672	
766	352	166.5	3 785.0	81.3	154.4	1 313.3	8 356.6	4 196.0	12 429.9	1 723.8	94	96	3674	
130	99	28.9	387.9	21.6	40.7	243.8	728.4	466.9	1 188.9	72.3	94	90	3675	
103	85	18.3	258.4	12.4	23.8	139.1	524.0	238.4	765.8	28.9	89	88	3676	
386	245	23.7	293.4	18.7	35.2	183.5	537.6	327.6	863.3	36.5	91	84	3677	
198	159	39.7	687.5	28.0	54.2	418.4	1 633.5	974.9	2 565.0	168.7	87	91	3678	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	3679	

Table 2. Statistics for Industry Groups and Industries: 1987 and 1982—Con.

[Data in this table may differ from the preliminary industry reports previously issued. These differences are due to corrections which were made for errors identified after the industry reports were

1987 SIC code	Industry group and industry	1987													
		All establishments ¹		All employees		Production workers			Value added by manufac- ture (million dollars)	Cost of materials ² (million dollars)	Value of shipments ² (million dollars)	New capital expendi- tures ³ (million dollars)	Ratios		
		Total (number)	With 20 employ- ees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)					Spe- cial- iza- tion (per- cent)	Cov- erage (per- cent)	
36	Electronic and other electric equipment—Con.														
369	Miscellaneous electrical equipment and supplies	2 315	947	188.4	4 699.6	129.0	254.8	2 717.3	11 160.0	10 663.2	21 939.1	837.6	(NA)	(NA)	
3691	Storage batteries	190	117	24.2	626.4	19.4	38.4	473.4	1 705.1	1 623.9	3 303.1	111.7	(NA)	(NA)	
3692	Primary batteries, dry and wet	71	36	10.7	231.2	8.2	16.0	155.2	1 130.5	751.8	1 875.1	60.7	(NA)	(NA)	
3694	Engine electrical equipment	485	234	66.8	1 710.2	51.5	102.0	1 181.5	3 434.8	4 033.9	7 474.5	234.0	(NA)	(NA)	
3695	Magnetic and optical recording media	186	80	25.5	642.6	16.8	34.0	345.8	2 055.8	2 030.9	4 066.5	248.2	(NA)	(NA)	
3699	Electrical equipment and supplies, n.e.c.	1 383	480	61.2	1 489.2	33.1	64.4	561.3	2 833.8	2 222.7	5 219.8	183.0	(NA)	(NA)	
37	Transportation equipment.....	10 500	4 252	1 819.7	58 966.3	1 206.3	2 440.1	34 755.1	135 782.7	198 719.4	332 470.3	10 874.1	(NA)	(NA)	
371	Motor vehicles and equipment	4 422	2 069	748.2	23 864.1	602.4	1 224.3	18 268.8	65 778.2	139 260.5	204 678.5	6 559.9	(NA)	(NA)	
3711	Motor vehicles and car bodies	412	173	284.5	10 374.8	235.6	472.7	8 191.5	36 066.1	97 569.6	133 343.3	4 121.2	(NA)	(NA)	
3713	Truck and bus bodies	719	327	37.9	855.7	29.1	58.5	589.0	1 972.7	2 679.5	4 600.5	87.9	(NA)	(NA)	
3714	Motor vehicle parts and accessories	2 788	1 306	383.2	11 755.6	304.1	626.9	8 876.0	25 957.3	34 903.7	60 873.2	2 286.4	(NA)	(NA)	
3715	Truck trailers	338	182	27.4	562.7	21.7	42.8	401.6	1 116.3	2 284.5	3 382.3	45.5	(NA)	(NA)	
3716	Motor homes	165	81	15.2	315.3	11.8	23.5	210.7	665.8	1 823.3	2 479.2	19.0	(NA)	(NA)	
372	Aircraft and parts	1 618	838	603.0	20 834.0	329.3	674.3	9 801.2	40 188.8	39 322.7	78 150.6	2 664.0	(NA)	(NA)	
3721	Aircraft	156	80	276.2	9 949.2	146.2	291.2	4 447.3	16 746.0	23 766.3	40 037.9	1 181.6	(NA)	(NA)	
3724	Aircraft engines and engine parts	452	288	139.4	4 808.3	79.6	166.0	2 359.8	11 697.2	9 081.9	20 244.3	746.6	(NA)	(NA)	
3728	Aircraft parts and equipment, n.e.c.	1 010	470	187.3	6 076.5	103.4	217.0	2 994.1	11 745.6	6 474.6	17 868.3	735.9	(NA)	(NA)	
373	Ship and boat building and repairing	2 766	720	177.4	4 265.6	137.6	272.3	2 933.1	7 656.7	6 238.9	13 856.9	406.7	(NA)	(NA)	
3731	Ship building and repairing	590	287	120.2	3 217.9	90.5	178.1	2 166.4	5 212.7	3 291.7	8 504.4	273.0	(NA)	(NA)	
3732	Boat building and repairing	2 176	433	57.2	1 047.7	47.1	94.3	766.6	2 444.1	2 947.3	5 352.5	133.8	(NA)	(NA)	
374	Railroad equipment	173	92	21.0	617.5	13.7	28.3	344.2	1 285.2	1 193.8	2 414.6	41.5	(NA)	(NA)	
3743	Railroad equipment	173	92	21.0	617.5	13.7	28.3	344.2	1 285.2	1 193.8	2 414.6	41.5	(NA)	(NA)	
375	Motorcycles, bicycles, and parts	246	56	7.4	158.3	5.8	12.1	110.9	367.8	679.6	1 062.6	30.7	(NA)	(NA)	
3751	Motorcycles, bicycles, and parts	246	56	7.4	158.3	5.8	12.1	110.9	367.8	679.6	1 062.6	30.7	(NA)	(NA)	
376	Guided missiles, space vehicles, parts	156	113	213.3	8 100.9	81.8	159.3	2 606.5	18 152.0	8 381.3	26 245.4	1 076.6	(NA)	(NA)	
3761	Guided missiles and space vehicles	40	38	166.7	6 414.8	62.7	121.4	2 019.7	14 999.5	6 791.3	21 565.8	818.7	(NA)	(NA)	
3764	Space propulsion units and parts	35	28	31.8	1 174.7	11.2	22.4	350.0	2 314.2	1 286.1	3 537.1	194.4	(NA)	(NA)	
3769	Space vehicle equipment, n.e.c.	81	47	14.8	511.5	8.0	15.5	236.8	838.3	304.0	1 142.5	63.4	(NA)	(NA)	
379	Miscellaneous transportation equipment	1 119	364	49.3	1 125.9	35.8	69.5	690.6	2 354.0	3 642.5	6 061.7	94.6	(NA)	(NA)	
3792	Travel trailers and campers	428	151	17.2	316.8	13.7	25.3	214.3	696.4	1 186.6	1 872.6	16.1	(NA)	(NA)	
3795	Tanks and tank components	56	39	16.4	498.7	11.0	22.7	310.0	969.0	1 454.0	2 521.8	39.9	(NA)	(NA)	
3799	Transportation equipment, n.e.c.	635	174	15.6	310.4	11.1	21.5	166.3	688.7	1 001.9	1 667.3	38.7	(NA)	(NA)	
38	Instruments and related products	10 326	4 084	996.0	29 089.0	509.3	1 013.9	11 655.0	71 487.2	37 374.5	108 269.9	3 773.0	(NA)	(NA)	
381	Search and navigation equipment	1 137	552	372.3	12 446.3	159.9	316.0	4 493.6	24 647.7	12 178.5	36 392.1	1 336.0	(NA)	(NA)	
3812	Search and navigation equipment	1 137	552	372.3	12 446.3	159.9	316.0	4 493.6	24 647.7	12 178.5	36 392.1	1 336.0	(NA)	(NA)	
382	Measuring and controlling devices	4 240	1 723	292.2	8 016.2	153.6	306.9	3 267.0	17 325.6	9 673.7	26 906.7	922.2	(NA)	(NA)	
3821	Laboratory apparatus and furniture	289	143	17.8	459.3	9.9	19.8	200.3	1 146.3	660.8	1 806.4	54.6	(NA)	(NA)	
3822	Environmental controls	262	112	27.1	617.4	18.9	36.8	362.6	1 405.3	782.9	2 197.1	68.0	(NA)	(NA)	
3823	Process control instruments	784	338	53.0	1 468.0	26.5	53.1	554.6	3 200.1	1 602.3	4 787.9	128.8	(NA)	(NA)	
3824	Fluid meters and counting devices	158	60	10.2	237.2	6.5	12.7	119.6	572.9	395.4	959.1	34.9	(NA)	(NA)	
3825	Instruments to measure electricity	928	406	85.3	2 471.9	44.3	92.1	1 022.2	5 026.2	2 714.3	7 718.2	298.0	(NA)	(NA)	
3826	Analytical instruments	569	212	34.0	979.3	14.6	28.6	310.9	2 322.6	1 523.7	3 823.8	138.3	(NA)	(NA)	
3827	Optical instruments and lenses	249	125	21.6	626.9	11.7	22.1	262.4	1 295.3	725.6	2 017.5	89.9	(NA)	(NA)	
3829	Measuring and controlling devices, n.e.c.	1 001	327	43.2	1 156.3	21.3	41.8	434.4	2 357.0	1 268.6	3 596.7	109.7	(NA)	(NA)	
384	Medical instruments and supplies.....	3 443	1 301	206.3	5 046.7	125.1	247.5	2 287.4	14 864.9	8 133.5	22 866.7	733.8	(NA)	(NA)	
3841	Surgical and medical instruments	1 129	434	73.9	1 793.1	45.9	93.3	853.8	5 125.1	2 523.5	7 625.9	346.8	(NA)	(NA)	
3842	Surgical appliances and supplies.....	1 520	557	80.4	1 812.9	52.1	101.8	882.6	5 604.0	3 190.5	8 753.6	212.0	(NA)	(NA)	
3843	Dental equipment and supplies.....	504	130	14.4	342.8	8.7	16.7	158.2	886.3	522.9	1 398.9	31.2	(NA)	(NA)	
3844	X-ray apparatus and tubes	77	45	9.5	281.3	5.6	11.2	139.6	943.3	722.0	1 648.8	36.3	(NA)	(NA)	
3845	Electromedical equipment.....	213	135	28.1	816.5	12.7	24.6	253.3	2 306.3	1 174.7	3 439.6	107.5	(NA)	(NA)	

See footnotes at end of table.

issued. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix]

1982														1987 SIC code
All establishments ¹		All employees		Production workers			Value added by manufac- ture (million dollars)	Cost of materials ² (million dollars)	Value of shipments ² (million dollars)	New capital expendi- tures ³ (million dollars)	Ratios			
Total (number)	With 20 employ- ees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)					Spe- cial- iza- tion (per- cent)	Cov- erage (per- cent)		
														36
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	369
201	123	22.9	473.6	18.0	34.4	347.3	1 203.0	1 196.2	2 431.3	109.7	97	98	98	3691
55	35	11.7	192.3	9.1	17.6	137.0	559.2	531.7	1 101.8	42.9	94	95	95	3692
433	196	42.9	820.5	32.3	60.5	534.7	1 851.5	1 582.1	3 464.3	78.4	85	88	88	3694
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	3695
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	3699
9 443	3 800	1 595.9	40 811.9	1 059.6	2 051.4	24 378.8	84 932.3	120 010.5	201 346.1	7 214.4	(NA)	(NA)	(NA)	37
3 867	1 749	615.6	15 393.4	485.3	923.2	11 522.4	34 293.5	77 677.9	112 269.6	4 264.4	(NA)	(NA)	(NA)	371
355	152	240.1	6 821.9	193.5	364.2	5 261.5	15 455.8	55 520.0	70 739.7	2 368.3	95	99	99	3711
680	277	28.1	497.2	21.1	40.0	344.2	1 176.9	1 304.3	2 463.6	49.2	93	94	94	3713
2 420	1 111	321.4	7 614.0	251.1	481.8	5 614.2	16 764.6	19 007.0	36 293.1	1 791.7	93	86	86	3714
325	154	18.8	339.6	14.0	27.1	223.2	592.2	1 193.6	1 820.6	39.7	95	95	95	3715
87	55	7.2	120.6	5.7	10.2	79.3	304.0	653.1	952.7	15.5	97	88	88	3716
1 471	730	538.6	14 717.5	288.5	572.8	6 987.1	29 402.2	25 956.6	52 026.7	1 680.3	(NA)	(NA)	(NA)	372
165	86	275.1	7 743.7	138.6	272.2	3 517.9	15 641.9	15 705.4	28 024.3	836.4	87	97	97	3721
340	225	130.7	3 544.4	76.5	154.0	1 819.3	7 572.2	6 262.1	13 809.3	441.1	85	96	96	3724
966	419	132.8	3 429.4	73.5	146.6	1 650.0	6 188.1	3 989.0	10 193.1	402.9	71	65	65	3728
2 566	762	205.0	4 325.8	161.5	319.3	3 194.0	7 508.6	5 822.7	13 326.4	496.1	(NA)	(NA)	(NA)	373
689	377	166.7	3 737.7	130.7	259.4	2 771.2	6 379.4	4 587.8	10 967.2	438.4	99	99	99	3731
1 877	385	38.3	588.1	30.8	59.9	422.8	1 129.2	1 234.9	2 359.2	57.6	98	96	96	3732
200	107	34.5	790.4	22.8	38.9	478.7	1 491.8	1 770.5	3 456.6	142.3	85	96	96	374
200	107	34.5	790.4	22.8	38.9	478.7	1 491.8	1 770.5	3 456.6	142.3	85	96	96	3743
273	67	13.0	224.9	10.4	19.0	168.8	402.5	888.9	1 341.1	23.1	85	96	96	375
273	67	13.0	224.9	10.4	19.0	168.8	402.5	888.9	1 341.1	23.1	85	96	96	3751
105	86	146.3	4 481.1	59.7	120.1	1 483.3	9 856.6	5 034.4	14 398.0	461.5	(NA)	(NA)	(NA)	376
29	28	99.6	3 159.4	35.9	70.5	915.7	7 025.5	3 652.1	10 218.6	293.3	83	86	86	3761
27	25	25.3	737.1	10.8	23.4	263.1	1 534.0	737.2	2 221.2	95.8	89	89	89	3764
49	33	21.4	584.6	13.0	26.2	304.5	1 297.1	645.1	1 958.3	72.4	62	46	46	3769
961	299	42.9	878.8	31.3	58.0	544.5	1 977.0	2 859.6	4 527.7	146.7	(NA)	(NA)	(NA)	379
492	142	13.8	221.6	11.2	20.4	149.8	442.4	837.7	1 281.6	17.0	88	97	97	3792
44	37	18.2	475.9	12.6	23.3	291.1	1 157.7	1 506.2	2 351.0	114.7	(D)	79	79	3795
425	120	10.9	181.2	7.5	14.4	103.7	377.0	515.6	895.2	15.0	93	82	82	3799
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	38
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	381
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	3812
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	382
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	3821
245	89	28.8	497.5	20.6	36.2	301.9	1 025.7	514.3	1 549.1	66.8	92	90	90	3822
627	290	60.3	1 256.1	30.0	57.7	482.0	2 826.9	1 175.5	4 037.8	127.4	91	87	87	3823
145	70	11.1	198.0	6.9	13.1	109.4	460.2	266.7	728.3	27.6	94	84	84	3824
749	352	89.7	1 888.2	48.9	92.5	757.1	4 290.1	1 840.7	6 094.4	308.3	94	91	91	3825
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	3826
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	3827
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	3829
2 973	1 066	189.2	3 558.5	117.5	226.5	1 647.1	9 712.2	5 604.1	15 133.3	675.8	(NA)	(NA)	(NA)	384
859	312	56.9	999.5	38.5	74.3	517.5	2 884.8	1 252.5	4 084.5	230.2	90	81	81	3841
1 367	451	68.8	1 211.1	46.1	87.8	633.1	3 450.8	2 233.1	5 667.1	187.7	86	89	89	3842
485	131	15.5	281.3	9.8	18.8	132.0	642.8	473.3	1 111.7	21.6	95	99	99	3843
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	3844
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	3845

Table 2. Statistics for Industry Groups and Industries: 1987 and 1982—Con.

[Data in this table may differ from the preliminary industry reports previously issued. These differences are due to corrections which were made for errors identified after the industry reports were

1987 SIC code	Industry group and industry	1987												
		All establishments ¹		All employees		Production workers			Value added by manufac- ture (million dollars)	Cost of materials ² (million dollars)	Value of shipments ² (million dollars)	New capital expendi- tures ³ (million dollars)	Ratios	
		Total (number)	With 20 employ- ees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)					Spe- cial- iza- tion (per- cent)	Cov- erage (per- cent)
38	Instruments and related products—Con.													
385	Ophthalmic goods	494	147	23.9	450.5	15.9	31.5	231.3	1 094.0	500.6	1 578.4	73.1	(NA)	(NA)
3851	Ophthalmic goods	494	147	23.9	450.5	15.9	31.5	231.3	1 094.0	500.6	1 578.4	73.1	(NA)	(NA)
386	Photographic equipment and supplies	791	284	88.6	2 900.4	45.0	92.6	1 232.8	13 059.2	6 360.7	19 505.0	683.9	(NA)	(NA)
3861	Photographic equipment and supplies	791	284	88.6	2 900.4	45.0	92.6	1 232.8	13 059.2	6 360.7	19 505.0	683.9	(NA)	(NA)
387	Watches, clocks, watchcases, and parts	221	77	12.7	228.8	9.8	19.3	142.9	495.8	527.4	1 021.0	24.0	(NA)	(NA)
3873	Watches, clocks, watchcases, and parts	221	77	12.7	228.8	9.8	19.3	142.9	495.8	527.4	1 021.0	24.0	(NA)	(NA)
39	Miscellaneous manufacturing industries	16 544	3 654	371.7	6 847.3	270.1	517.4	4 011.9	17 431.6	14 579.0	31 909.6	696.2	(NA)	(NA)
391	Jewelry, silverware, and plated ware	2 978	497	50.2	957.1	35.9	69.5	545.0	2 486.9	3 249.2	5 694.1	54.1	(NA)	(NA)
3911	Jewelry, precious metal	2 325	371	36.2	697.2	25.6	49.8	385.4	1 923.3	2 345.2	4 234.0	34.9	(NA)	(NA)
3914	Silverware and plated ware	210	53	6.9	132.9	5.0	8.9	82.1	276.4	254.8	529.2	10.0	(NA)	(NA)
3915	Jewelers' materials and lapidary work	443	73	7.1	126.9	5.4	10.7	77.5	287.1	649.1	930.8	9.2	(NA)	(NA)
393	Musical instruments	425	105	12.5	223.2	9.9	19.0	149.5	518.1	330.3	837.8	14.6	(NA)	(NA)
3931	Musical instruments	425	105	12.5	223.2	9.9	19.0	149.5	518.1	330.3	837.8	14.6	(NA)	(NA)
394	Toys and sporting goods	2 711	740	88.2	1 505.2	66.4	125.1	913.9	4 868.2	4 007.7	8 802.5	231.0	(NA)	(NA)
3942	Dolls and stuffed toys	194	51	4.2	56.2	3.2	5.5	29.9	145.5	150.6	285.6	4.2	(NA)	(NA)
3944	Games, toys, and children's vehicles	720	201	31.1	545.9	23.9	45.4	333.3	1 943.1	1 542.8	3 445.5	94.5	(NA)	(NA)
3949	Sporting and athletic goods, n.e.c.	1 797	488	52.8	903.1	39.3	74.2	550.7	2 779.6	2 314.3	5 071.4	132.3	(NA)	(NA)
395	Pens, pencils, office, and art supplies	1 013	248	28.7	539.2	20.7	40.8	318.8	1 431.4	1 092.0	2 532.5	70.9	(NA)	(NA)
3951	Pens and mechanical pencils	110	54	8.4	166.5	6.4	12.5	107.6	486.2	325.5	818.8	23.9	(NA)	(NA)
3952	Lead pencils and art goods	144	40	5.6	103.0	4.0	7.7	58.0	361.2	252.0	608.8	21.3	(NA)	(NA)
3953	Marking devices	634	91	7.5	135.9	4.8	9.3	73.0	275.7	163.6	439.5	9.7	(NA)	(NA)
3955	Carbon paper and inked ribbons	125	63	7.3	133.8	5.4	11.4	80.2	308.3	351.0	665.3	16.0	(NA)	(NA)
396	Costume jewelry and notions	1 020	291	31.2	487.2	22.0	42.3	276.6	1 155.0	800.6	1 955.1	31.4	(NA)	(NA)
3961	Costume jewelry	758	195	21.6	317.9	14.4	27.3	166.7	765.7	518.0	1 285.1	10.9	(NA)	(NA)
3965	Fasteners, buttons, needles, and pins	262	96	9.6	169.3	7.6	15.0	109.9	389.3	282.6	670.0	20.5	(NA)	(NA)
399	Miscellaneous manufactures	8 397	1 773	160.9	3 135.5	115.2	220.7	1 808.1	6 972.0	5 099.2	12 087.6	294.2	(NA)	(NA)
3991	Brooms and brushes	300	143	12.3	230.4	9.2	17.5	137.0	550.6	440.3	989.7	26.5	(NA)	(NA)
3993	Signs and advertising specialties	3 771	818	65.7	1 352.2	43.9	84.3	726.1	2 485.1	1 773.6	4 253.8	95.0	(NA)	(NA)
3995	Burial caskets	229	80	8.7	162.7	6.8	13.7	112.3	472.2	360.5	838.7	28.8	(NA)	(NA)
3996	Hard surface floor coverings, n.e.c.	21	17	7.6	224.6	6.0	12.6	165.1	740.1	560.5	1 309.7	49.7	(NA)	(NA)
3999	Manufacturing industries, n.e.c.	4 076	715	66.6	1 165.6	49.3	92.6	667.5	2 724.0	1 964.4	4 695.7	94.2	(NA)	(NA)
—	Auxiliaries ⁴	9 480	5 222	1 181.9	44 793.2	—	—	—	—	—	—	—	(NA)	(NA)

¹Includes establishments with payroll at any time during year.

²Aggregate of cost of materials and value of shipments figures includes extensive duplication since products of some industries are used as materials by others (see appendix).

³Includes expenditures for plants in operation and for plants under construction but not yet in operation.

⁴Manufacturing concerns reported separately for auxiliary units which serve the manufacturing establishments of a company (e.g., storage warehouses, power plants, research laboratories, garages, repair ships, etc.) rather than the general public if these units were at different locations from establishment served or if they serviced more than one manufacturing establishment. Employment and payroll data shown represent total for such units which primarily serve manufacturing plants.

issued. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix]

1982													1987 SIC code
All establishments ¹		All employees		Production workers			Value added by manufac- ture (million dollars)	Cost of materials ² (million dollars)	Value of shipments ² (million dollars)	New capital expendi- tures ³ (million dollars)	Ratios		
Total (number)	With 20 employ- ees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)					Spe- cial- iza- tion (per- cent)	Cov- erage (per- cent)	
													38
410	122	25.8	408.7	17.1	34.5	212.6	874.2	386.4	1 273.0	41.1	91	98	385
410	122	25.8	408.7	17.1	34.5	212.6	874.2	386.4	1 273.0	41.1	91	98	3851
													388
795	286	119.3	3 193.1	64.1	123.7	1 457.2	10 859.5	5 859.7	17 037.5	752.6	94	97	3881
795	286	119.3	3 193.1	64.1	123.7	1 457.2	10 859.5	5 859.7	17 037.5	752.6	94	97	3881
													387
237	87	16.8	248.1	12.3	22.4	150.2	483.5	688.2	1 187.6	14.6	95	93	3873
237	87	16.8	248.1	12.3	22.4	150.2	483.5	688.2	1 187.6	14.6	95	93	3873
													39
15 871	3 568	382.6	5 646.9	280.8	522.8	3 413.6	14 059.1	12 791.2	26 891.4	629.2	(NA)	(NA)	39
													391
2 882	504	50.2	770.1	34.7	64.8	447.8	1 784.4	2 578.7	4 378.5	52.3	(NA)	(NA)	391
2 193	367	35.3	535.8	23.7	43.6	302.6	1 278.8	1 779.3	3 039.1	33.4	94	97	3911
													3914
208	55	9.1	148.3	6.5	12.4	91.6	311.9	262.5	583.9	11.8	96	98	3915
481	82	5.8	86.1	4.5	8.8	53.6	193.7	536.8	755.5	7.1	96	86	3915
													393
452	137	17.8	257.8	14.0	25.7	176.6	494.8	415.5	915.9	20.1	98	97	393
452	137	17.8	257.8	14.0	25.7	176.6	494.8	415.5	915.9	20.1	98	97	3931
													394
2 570	784	98.9	1 389.3	74.0	137.8	837.8	4 610.1	3 639.9	8 255.6	195.4	(NA)	(NA)	394
237	71	7.3	86.6	5.9	10.6	48.1	209.5	194.2	402.7	7.3	90	66	3942
													3944
780	253	43.8	625.0	32.2	59.4	363.6	2 622.6	1 854.5	4 476.0	111.5	89	91	3949
1 553	460	47.8	677.7	36.0	67.7	426.1	1 778.0	1 591.2	3 376.8	76.5	97	95	3949
													395
1 026	267	32.2	484.8	23.7	45.3	304.2	1 262.8	1 128.4	2 371.7	74.8	(NA)	(NA)	395
													3951
136	69	11.6	174.8	8.8	16.8	112.3	472.6	346.6	809.4	27.8	91	88	3952
													3953
148	43	6.0	87.5	4.3	8.0	48.6	244.8	199.4	445.9	16.2	79	88	3953
627	88	7.6	107.1	5.5	10.2	65.7	221.4	119.0	337.6	7.6	94	90	3953
													3955
115	67	6.9	115.4	5.2	10.3	77.6	324.1	463.5	778.8	23.1	83	73	3955
													396
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	396
785	186	21.1	263.3	15.7	29.4	158.0	588.9	414.5	1 027.1	16.6	93	90	3961
													3965
356	132	16.1	212.5	12.7	25.7	143.9	446.6	370.5	823.0	41.6	(NA)	(NA)	3965
													399
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	399
341	139	14.1	197.1	10.5	19.4	123.0	432.5	376.9	818.1	17.2	90	89	3991
													3993
3 243	662	52.8	870.7	36.4	66.4	497.3	1 583.9	1 113.1	2 692.4	63.1	97	96	3993
301	110	10.3	145.1	8.1	15.3	98.0	374.6	309.7	682.1	36.7	100	99	3995
													3996
17	10	5.3	112.1	3.9	7.3	78.3	323.4	270.3	604.1	18.2	94	95-100	3999
3 898	637	64.0	944.0	46.8	85.8	548.7	2 157.0	2 173.8	4 322.9	93.2	(NA)	(NA)	3999
													—
9 676	5 204	1 276.0	38 220.4	—	—	—	—	—	—	—	—	—	—

Table 3. Statistics for the States: 1987 and 1982

[Includes operating manufacturing establishments and auxiliaries. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix]

Geographic area	1987										
	All establishments ^{1 2}		All employees ²		Production workers			Value added by manufacture (million dollars)	Cost of materials ³ (million dollars)	Value of shipments ³ (million dollars)	New capital expenditures ⁴ (million dollars)
	Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)				
United States -----	368 817	126 162	18 933.6	474 082.9	12 259.5	24 355.8	251 533.0	1 166 554.9	1 321 327.8	2 480 236.2	78 907.3
Alabama -----	5 845	2 072	349.7	6 994.6	269.5	532.1	4 754.0	18 591.1	22 188.2	40 736.9	1 477.9
Alaska -----	427	104	10.8	263.9	8.3	16.5	189.3	827.2	1 873.6	2 684.9	68.7
Arizona -----	4 152	1 129	184.3	4 670.5	105.2	213.0	2 136.2	11 182.3	9 566.0	20 587.9	839.1
Arkansas -----	3 394	1 215	205.7	3 821.4	161.8	325.4	2 654.1	10 569.8	15 034.6	25 405.9	880.7
California -----	49 941	15 695	2 111.0	57 185.0	1 245.5	2 443.2	25 843.8	133 995.6	122 013.7	255 226.4	8 723.7
Colorado -----	4 701	1 098	183.4	4 958.7	102.9	203.4	2 277.6	11 876.1	11 241.4	23 141.3	804.8
Connecticut -----	6 730	2 446	386.3	10 994.6	216.3	440.2	4 810.7	22 342.7	15 419.0	37 320.6	1 294.3
Delaware -----	676	264	67.8	2 136.4	33.5	67.1	783.3	3 933.3	6 986.2	10 853.1	270.2
District of Columbia -----	488	124	17.0	494.4	5.2	10.7	119.6	1 557.1	583.5	2 128.6	43.6
Florida -----	15 596	4 042	499.5	10 958.2	309.3	616.3	5 236.9	27 966.2	29 330.4	57 035.5	1 906.0
Georgia -----	9 165	3 509	567.5	11 789.0	409.2	821.2	7 194.9	33 912.5	42 356.4	75 992.8	2 472.9
Hawaii -----	1 020	223	22.1	436.1	15.3	29.0	254.6	1 411.0	2 051.5	3 457.0	100.2
Idaho -----	1 496	372	52.7	1 142.3	38.0	72.0	693.9	3 055.4	3 962.0	7 009.4	234.3
Illinois -----	18 373	7 169	985.4	26 087.3	609.0	1 227.4	13 391.9	63 664.3	69 086.5	132 579.0	4 469.3
Indiana -----	8 631	3 609	601.5	15 739.4	427.5	860.6	9 891.2	39 536.5	44 823.8	84 147.4	3 371.2
Iowa -----	3 566	1 258	206.1	4 971.6	140.2	277.5	3 042.5	14 502.4	21 008.3	35 449.9	833.3
Kansas -----	3 269	1 137	188.9	4 595.6	120.5	244.7	2 605.8	12 906.2	18 419.1	30 975.7	1 018.5
Kentucky -----	3 688	1 511	252.0	5 876.6	185.3	357.5	3 764.7	18 109.5	23 999.3	41 845.9	1 749.8
Louisiana -----	3 806	1 104	160.3	4 134.4	110.7	225.0	2 585.1	16 453.8	34 269.9	50 714.4	1 419.6
Maine -----	2 167	600	101.5	2 188.4	77.6	151.4	1 460.0	5 265.7	5 421.8	10 649.3	539.4
Maryland -----	4 250	1 476	231.4	5 951.3	140.1	275.0	2 989.8	14 072.6	14 023.4	28 073.5	876.2
Massachusetts -----	11 023	4 196	589.3	15 150.8	349.4	693.7	7 023.7	35 796.9	27 550.0	62 986.0	2 160.3
Michigan -----	15 996	5 736	981.6	30 743.0	635.9	1 304.3	17 392.7	60 733.2	86 286.0	146 793.7	4 791.8
Minnesota -----	7 110	2 416	374.0	10 119.9	215.1	428.8	4 510.3	23 271.8	24 644.0	47 766.6	1 751.5
Mississippi -----	3 312	1 243	219.9	3 845.3	171.6	337.6	2 624.4	10 491.2	14 029.0	24 452.5	643.7
Missouri -----	7 314	2 585	418.3	10 379.7	264.9	520.9	5 414.3	25 924.6	33 890.6	59 932.9	1 608.6
Montana -----	1 240	184	20.1	428.0	14.9	29.0	297.8	1 115.5	2 397.1	3 504.8	97.5
Nebraska -----	1 872	631	89.8	1 914.1	63.4	126.6	1 197.5	5 762.2	9 791.8	15 484.6	316.3
Nevada -----	974	240	23.7	519.6	15.8	30.8	298.5	928.4	1 195.1	2 460.4	110.4
New Hampshire -----	2 336	739	108.4	2 516.6	71.7	142.0	1 429.7	7 818.4	4 347.5	12 245.6	340.1
New Jersey -----	14 437	5 463	684.8	18 308.5	394.4	780.6	8 391.2	42 483.7	40 397.1	82 525.8	2 342.7
New Mexico -----	1 322	283	34.6	714.1	23.7	47.4	433.3	1 719.3	2 501.1	4 224.9	196.4
New York -----	29 607	9 488	1 270.2	33 300.2	723.4	1 403.3	14 356.2	79 281.7	66 048.9	144 822.7	4 284.5
North Carolina -----	10 982	4 757	842.7	16 221.1	638.1	1 260.6	10 221.5	47 322.4	48 640.0	95 513.2	2 990.0
North Dakota -----	626	138	15.4	309.6	10.4	20.3	179.6	985.4	1 618.1	2 581.9	47.4
Ohio -----	17 514	6 854	1 097.0	30 682.8	713.2	1 447.9	17 486.7	71 669.4	87 253.3	158 531.0	4 835.4
Oklahoma -----	3 742	1 020	155.3	3 816.2	105.6	208.8	2 211.0	9 835.5	14 422.9	24 182.2	543.4
Oregon -----	6 355	1 648	203.7	4 774.3	145.0	285.6	2 953.7	11 561.2	13 914.4	25 384.0	735.5
Pennsylvania -----	17 854	7 228	1 035.4	25 244.6	681.7	1 338.7	13 727.8	57 744.7	61 476.2	118 611.3	3 439.5
Rhode Island -----	2 878	898	111.4	2 285.9	75.9	148.8	1 248.4	4 881.8	4 449.4	9 310.4	269.1
South Carolina -----	4 541	1 890	369.2	7 387.6	280.9	568.6	4 762.2	19 118.7	22 301.1	41 219.4	1 593.9
South Dakota -----	761	228	27.3	491.5	19.9	38.9	312.6	1 476.1	2 407.0	3 858.7	79.3
Tennessee -----	6 868	2 799	484.9	9 855.2	359.3	707.6	6 283.5	27 079.4	30 706.8	57 665.1	1 905.7
Texas -----	20 367	6 184	912.3	22 954.3	565.3	1 135.2	11 514.1	63 920.7	99 878.7	163 418.1	4 436.2
Utah -----	2 088	617	89.5	2 078.4	55.4	107.9	1 005.1	4 858.7	5 501.2	10 297.0	404.1
Vermont -----	1 263	332	48.6	1 139.7	30.6	58.3	551.9	2 544.3	2 196.0	4 748.1	335.9
Virginia -----	6 136	2 228	427.4	9 632.1	305.8	602.2	5 732.6	27 136.0	25 478.7	52 200.9	1 559.8
Washington -----	7 636	1 953	310.0	8 844.8	184.6	355.0	4 265.8	18 024.8	28 651.8	46 439.1	1 245.2
West Virginia -----	1 620	486	83.4	2 104.7	58.5	115.1	1 310.8	5 423.5	6 003.3	11 568.4	359.0
Wisconsin -----	9 161	3 460	512.7	12 748.4	348.7	691.6	7 597.6	31 428.2	38 109.3	69 437.4	2 023.4
Wyoming -----	501	81	7.8	182.3	5.4	10.7	118.4	485.7	1 582.8	2 054.1	67.0

¹Includes establishments with payroll at any time during year.

²Includes auxiliaries (see appendix).

³Aggregate of cost of materials and value of shipments figures includes extensive duplication since products of some industries are used as materials by others (see appendix).

⁴Includes expenditures for plants in operation and for plants under construction but not yet in operation.

1982												Geographic area
All establishments ^{1 2}		All employees ²		Production workers		Wages (million dollars)	Value added by manufac- ture (million dollars)	Cost of materials ³ (million dollars)	Value of shipments ³ (million dollars)	New capital expendi- tures ⁴ (million dollars)		
Total (number)	With 20 employ- ees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)							
358 061	123 163	19 094.1	379 626.5	12 400.6	23 538.3	204 787.2	824 117.7	1 130 142.7	1 960 205.8	74 561.6	United States	
5 528	1 968	329.6	5 234.4	253.6	479.8	3 598.3	12 045.7	17 535.5	29 794.3	1 540.2	Alabama	
445	144	12.8	269.5	10.0	18.3	196.6	769.2	1 805.8	2 579.9	58.5	Alaska	
3 407	854	149.8	3 036.9	86.7	165.2	1 423.4	6 162.4	6 726.3	12 907.2	765.2	Arizona	
3 313	1 161	189.8	2 823.7	148.8	279.1	1 931.7	7 755.3	12 002.1	19 746.5	701.2	Arkansas	
47 625	14 467	2 004.8	42 630.0	1 209.3	2 317.6	20 560.6	94 388.4	105 569.9	199 695.4	8 439.4	California	
4 406	1 167	191.4	3 983.2	109.8	207.5	1 876.7	8 056.8	9 958.6	17 963.1	892.2	Colorado	
6 693	2 537	424.4	9 059.6	245.0	478.8	4 095.0	16 373.4	13 697.3	30 066.5	1 054.2	Connecticut	
632	248	67.9	1 742.9	31.7	60.5	557.0	2 466.7	5 891.2	8 382.8	322.1	Delaware	
514	127	16.7	393.7	6.4	12.0	125.3	928.6	606.4	1 537.1	55.1	District of Columbia	
13 723	3 599	454.4	7 773.2	292.2	566.6	3 955.8	18 111.8	20 610.8	38 683.3	1 960.6	Florida	
8 534	3 148	503.0	7 905.7	369.4	705.0	4 863.9	19 191.8	29 101.3	48 056.0	1 921.7	Georgia	
966	237	23.6	360.3	16.0	29.9	217.5	1 119.6	2 357.5	3 443.0	89.4	Hawaii	
1 404	354	47.6	864.8	34.0	62.6	545.2	2 076.5	3 222.5	5 369.6	147.3	Idaho	
18 618	7 102	1 068.7	22 680.9	669.6	1 256.4	11 931.4	47 704.6	64 144.8	112 928.8	3 372.3	Illinois	
7 960	3 184	585.1	12 559.3	406.0	759.1	7 821.4	25 747.0	36 762.3	63 331.9	2 232.7	Indiana	
3 598	1 223	212.8	4 403.2	140.0	259.2	2 648.8	12 077.9	19 369.6	31 397.0	688.6	Iowa	
3 235	1 103	170.6	3 322.8	112.8	217.9	1 957.8	8 436.5	18 104.1	26 753.4	613.3	Kansas	
3 502	1 354	246.6	4 638.8	173.8	319.7	2 874.0	11 819.7	17 662.0	29 638.6	996.8	Kentucky	
4 107	1 335	202.0	4 304.1	142.4	281.0	2 730.6	11 754.6	44 843.5	57 058.1	2 561.9	Louisiana	
2 009	616	110.2	1 774.9	86.4	165.8	1 236.8	4 037.8	4 634.9	8 649.1	510.3	Maine	
3 883	1 382	234.4	4 859.3	145.9	270.6	2 550.8	10 133.8	11 256.1	21 281.5	718.1	Maryland	
11 017	4 290	643.4	12 353.1	397.0	765.2	6 000.6	25 967.5	22 145.8	48 203.9	1 667.3	Massachusetts	
15 158	5 010	883.9	22 223.0	563.6	1 090.5	12 504.9	39 118.1	59 962.5	99 715.0	3 503.0	Michigan	
6 775	2 214	350.0	7 422.9	200.6	376.2	3 428.4	15 366.9	19 853.5	35 321.3	1 193.0	Minnesota	
3 126	1 223	201.7	2 880.8	158.2	299.2	1 977.6	7 824.9	11 576.8	19 488.0	1 154.3	Mississippi	
7 069	2 467	405.9	8 013.2	256.4	477.2	4 198.9	18 333.8	24 160.9	41 459.4	1 339.8	Missouri	
1 090	176	20.2	379.1	14.6	27.0	265.0	713.5	2 954.5	3 666.2	74.6	Montana	
1 928	633	91.1	1 624.4	64.4	124.3	1 014.8	4 444.5	10 628.0	15 143.2	245.3	Nebraska	
851	177	20.4	356.2	13.1	24.8	209.7	862.6	895.6	1 755.6	80.3	Nevada	
1 981	721	107.4	1 792.0	75.3	144.9	1 054.9	4 004.0	3 609.3	7 635.6	246.2	New Hampshire	
15 126	5 756	754.0	15 845.0	440.4	842.7	7 206.7	31 656.0	38 430.8	70 419.9	2 061.3	New Jersey	
1 223	299	33.0	521.2	22.2	41.8	296.6	1 397.7	2 431.8	3 815.4	120.8	New Mexico	
32 651	10 670	1 418.8	29 156.0	836.3	1 613.0	13 269.9	62 906.6	58 009.8	121 468.6	4 267.1	New York	
10 133	4 378	798.6	11 717.1	604.9	1 116.0	7 297.3	28 492.2	35 634.0	64 176.2	2 583.8	North Carolina	
587	142	14.8	245.6	9.7	18.0	141.2	652.1	1 820.5	2 465.0	101.1	North Dakota	
16 960	6 515	1 102.0	24 740.1	694.9	1 326.3	13 816.3	49 640.9	61 943.9	112 277.6	4 216.3	Ohio	
4 168	1 248	196.9	4 009.9	121.1	233.6	2 065.1	8 143.0	14 999.7	23 116.1	841.3	Oklahoma	
5 659	1 443	185.1	3 783.2	129.6	237.9	2 333.7	7 973.0	9 883.4	17 897.3	644.0	Oregon	
17 686	7 497	1 180.0	23 314.5	772.2	1 435.9	12 855.6	44 824.1	56 542.0	102 939.9	3 390.9	Pennsylvania	
2 855	940	113.8	1 759.5	82.6	157.4	1 051.9	3 792.7	3 833.2	7 651.7	183.8	Rhode Island	
4 206	1 723	367.5	5 539.5	279.4	522.2	3 576.4	12 218.7	15 500.1	27 835.8	1 503.0	South Carolina	
748	205	24.5	397.9	17.5	32.6	261.9	1 100.2	1 905.1	3 005.2	62.3	South Dakota	
6 417	2 617	461.6	7 377.7	337.5	629.8	4 602.9	17 822.9	22 634.9	40 776.5	2 061.5	Tennessee	
20 288	7 006	1 058.5	21 434.9	669.5	1 306.0	11 232.8	53 357.8	117 599.8	171 674.3	8 193.2	Texas	
1 962	579	83.2	1 538.8	54.2	103.0	837.0	3 455.1	5 423.4	8 960.0	327.6	Utah	
1 104	310	46.8	862.7	30.0	56.2	433.8	2 036.8	1 682.6	3 730.4	270.9	Vermont	
5 568	2 036	391.1	6 649.0	287.4	541.1	4 191.7	17 255.6	19 662.3	36 802.7	1 522.9	Virginia	
6 788	1 707	291.4	6 680.6	177.6	327.0	3 624.3	12 595.5	23 225.6	34 665.1	1 074.3	Washington	
1 662	559	95.8	2 007.0	65.2	121.5	1 233.0	4 049.2	5 761.0	9 868.8	393.7	West Virginia	
8 682	3 197	496.7	10 197.1	328.7	621.0	5 990.3	22 545.6	29 487.4	52 447.8	1 547.2	Wisconsin	
511	115	9.9	183.3	6.6	13.2	115.3	407.7	2 082.5	2 558.4	49.8	Wyoming	

APPENDIX

Scope and Coverage and Explanation of Terms

GENERAL

The 1987 Census of Manufactures is the 32nd census of manufacturing establishments in the United States. For 1987, it was conducted as part of the economic censuses, which also included the censuses of mineral industries, construction industries, retail and wholesale trades, service industries, selected transportation activities, and several related programs, such as enterprise, and minority-owned and women-owned businesses, under authority of Title 13 of the United States Code. Title 13 specifies that an economic census be conducted every 5 years to cover years ending in 2 and 7.

SCOPE AND COVERAGE

Establishment Basis of Reporting

The census of manufactures is conducted on an establishment (see explanation of terms for a description of an establishment) basis. All manufacturing establishments with one paid employee or more at any time during the year are covered by the census of manufactures. Therefore, a company operating at more than one location is required to file a separate report for each location.

Auxiliaries

The establishment-based reports, collected as part of the census of manufactures, exclude information for separately operated auxiliary establishments that were (1) at different locations from the establishments, but not operated as an integral part thereof and (2) serving two establishments or more. For separately operated auxiliaries, data were collected on census form ES-9200. This form contains questions on employment and payroll for such functions as centralized administration, research and development, warehousing, and other auxiliary activities, and on the cost of research and development work performed. Data for auxiliaries are included in this report.

Use of Administrative Records

From a universe of approximately 350,000 manufacturing establishments in the Census of Manufactures, approximately 150,000 small single-establishment companies were excused from filing reports. Selection of the small establishment nonmail cases was done on an industry-by-industry basis. A variable cutoff was used to determine those establishments for which administrative records

were to be used in place of a census report. The cutoffs were selected so the administrative-record cases would account for approximately 3 percent or less of the value of shipments for the industry. These cutoffs were then adjusted so all single-establishment companies with less than 5 employees were excluded from the mail canvass, while all establishments with more than 20 employees were included. Where establishments in the 5 to 20 employee size range were included in the mail canvass, an abbreviated census form was frequently used.

For these nonmail establishments (and a small number of larger establishments whose reports were not received at the time the data were tabulated), data on employment, payroll, and receipts were obtained from administrative records of other government agencies rather than from census forms. The administrative-record information was then used in conjunction with industry averages to estimate the data for these establishments.

EXPLANATION OF TERMS

Number of establishments and companies—A separate report was required for each manufacturing establishment (plant) with one employee or more. An establishment is defined as a single physical location where manufacturing is performed. A company, on the other hand, is defined as a business organization consisting of one establishment or more under common ownership or control.

All employees—Includes all full-time and part-time employees on the payrolls at any time during the year. Included are all persons on paid sick leave, paid holidays, and paid vacations. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employees" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for midmonth payroll periods of March, May, August, and November.

Production workers—Includes workers up through the working-supervisor level engaged in fabricating, processing, assembling, inspecting, receiving, packing, warehousing, shipping (but not delivering), maintenance, repair, janitorial services, guard services, product development, auxiliary production for plant's own use (e.g., powerplant), recordkeeping, and other closely associated services. Truckdrivers delivering ready-mixed concrete also are included in production workers.

Other employees—Includes nonproduction personnel, including those engaged in the following activities: supervision above working-supervisor level, sales (including driver/salespersons), sales delivery (truckdrivers and helpers), advertising, credit collection, installation and servicing of own product, clerical and routine office functions, executive, purchasing, finance, legal, personnel (including cafeteria, etc.), professional, and technical employees.

Payroll—Includes the gross earnings for the “employees” defined above, such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees’ Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

Production-worker hours—Covers hours worked or paid for at the plant, including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

Cost of materials—Refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuels consumed, regardless of whether they were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or generating electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

Value of shipments and other receipts— Generally refers to received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair receipts, sale of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishment from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by another was reported by the plant providing the materials.

In a few industries, the value of production or value of work completed is used instead of value of shipments. These industries are footnoted in Table 2.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value, i.e., including not only the direct cost of production but also a reasonable proportion of “all other costs” (including company overhead and profit).

Value added by manufacture—This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacturing, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

For those industries where value of production is collected instead of value of shipments (see footnote in table 1), value added is adjusted only for the change in work-in-process inventories between the beginning and end of the year. For those industries where value of work done is collected, the value added does not include an adjustment for the change in finished goods or work-in-process inventories.

Value added avoids the duplication in the figure for value of shipments which results from the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

Expenditures for new plant and equipment—Establishments in operation and any known plants under construction were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments and (b) new machinery and equipment used for replacement and additions to plant capacity if they were of the type for which depreciation accounts are ordinarily maintained. These totals exclude expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expenses. Data for used plant and equipment will be published in the final industry bulletin.

End-of-year inventories—Comprised of (a) finished products; (b) work-in-process; and (c) materials, supplies, fuels, etc. Beginning in 1982, respondents were asked to report their inventories at (the lower of) cost or market prior to adjustment to LIFO cost. This is a change from prior years in which respondents were permitted to value their

inventories using any generally accepted accounting method. Therefore, 1982 through 1987 data for inventories are not strictly comparable to prior-year data.

Specialization and coverage ratios—An establishment is classified in a particular industry if its shipments of primary products of the industry exceed in value its shipments of the product of any other single industry. An establishments' shipments include those products assigned to an industry (primary products), those considered primary to other industries (secondary products), and receipts for miscellaneous activities (merchandising, contract work, resales, etc.). The following ratios have been developed to measure the relationship of primary product shipments to

the data on shipments for the industry shown in table 1 and data on product shipments shown in table 2.

Specialization ratio—Represents the ratio of primary product shipments to total product shipments (primary and secondary, excluding miscellaneous receipts) for the establishments classified in the industry.

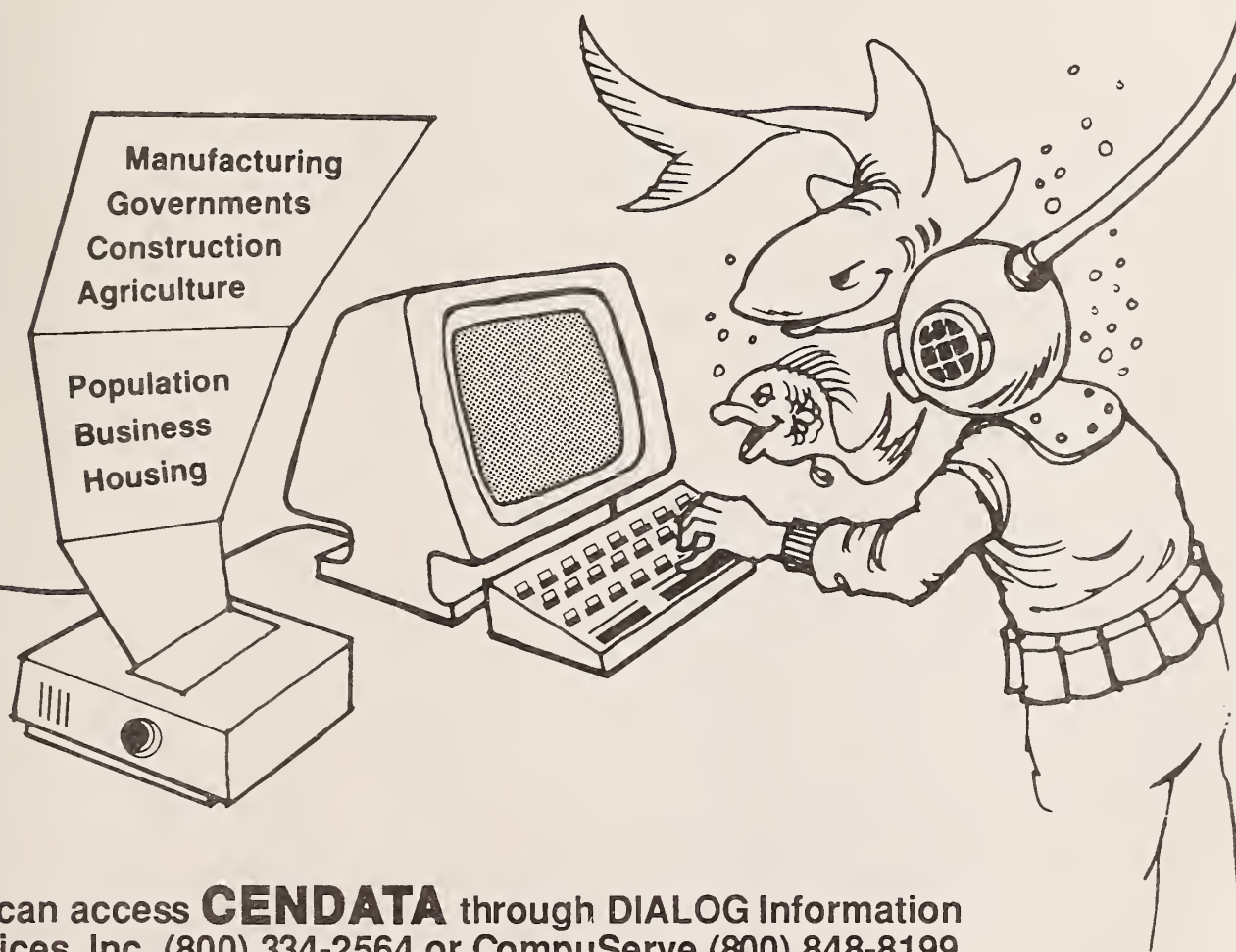
Coverage ratio—Represents the ratio of primary products shipped by the establishments classified in the industry to the total shipments of such products that are shipped by all manufacturing establishments, wherever classified.

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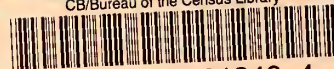
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